

CHAPTER 6: WHAT DID WE LEARN ABOUT COMMERCIAL SERVICE ACTIVITY?

Why is Commercial Airline Activity Important to Washington State?

Commercial air transport activity is a critically important generator of economic and quality-of-life benefits to the State of Washington

Effective and competitive airline service is critically important to Washington State's economy, providing mobility to Washington businesses and their customers, and offering convenient and affordable transport to Washington residents and visitors.

Commercial air transportation offers many benefits to commerce and the quality of life within Washington State:

- Facilitates commerce, by permitting face-to-face meetings between companies in Washington State and their customers
- Helps to attract corporate investment in the state: Companies which choose to locate facilities in Washington State may do so in part because of the availability of good air service
- Enables rapid leisure and personal travel by residents of Washington State, as well as visitors to the state
- Enables rapid shipment of manufactured goods produced or consumed in Washington State
- Permits rapid shipment of time-critical documents and commodities, including business products, cancelled checks and medical supplies

It is difficult to quantify the true economic impact of effective air service on a region, as much of its value lies in helping to create a positive business and investment climate. However, certain impacts that result directly or indirectly from the availability of commercial air transportation would include, but not be limited to the following:

- **Air carrier expenditures within the state economy**, on items such as landing fees, airport facility rentals, wages of locally-based employees, and purchased third party services such as ground handling or line maintenance

- **Expenditures within the state by other companies or organizations involved in the provision of commercial air services**, including service providers and the airports themselves
- **Visitor expenditures within the state**, on items such as food, lodging, local transportation, entertainment and retail purchases
- **Expenditures by passengers on-airport**, on goods and services provided by concessionaires such as car rental agencies, restaurants and shops.

These in-state expenditures produce additional rounds of spending and re-spending within the state economy, known as “induced” economic impacts, resulting in an overall economic impact that may be many times that of the initial expenditures.

An economic impact study commissioned by the Washington State Department of Transportation estimates that commercial air transport activity produces the following economic impacts in the state economy:

- \$18.1 billion in total output
- \$3.9 billion in employee compensation
- 164,000 jobs¹⁸

These figures may in fact understate overall economic impact, as they do not include additional investment in the state that occurs as a result of the availability of convenient air service.

¹⁸ Washington State Department of Transportation, Aviation Division: Aviation System Plan – Forecast and Economic Analysis Study, 2001.

Organization of This Chapter

The remainder of this chapter is organized as follows:

1.3 Description of Existing Commercial Service Activity Across the State

1.4 Scope of Forecasts

1.5 Forecast Methodology

1.6 Forecast Results

1.7 Profile of Individual Airports

1.8 Key Findings

A Technical Report with detailed analysis, methodology and forecast results for Washington State's commercial service airports is included in the Appendix.

Description of Existing Commercial Service Activity Across the State

In 2006, commercial service airports in Washington State accommodated 17 million passenger enplanements and 528,000 commercial passenger aircraft operations.

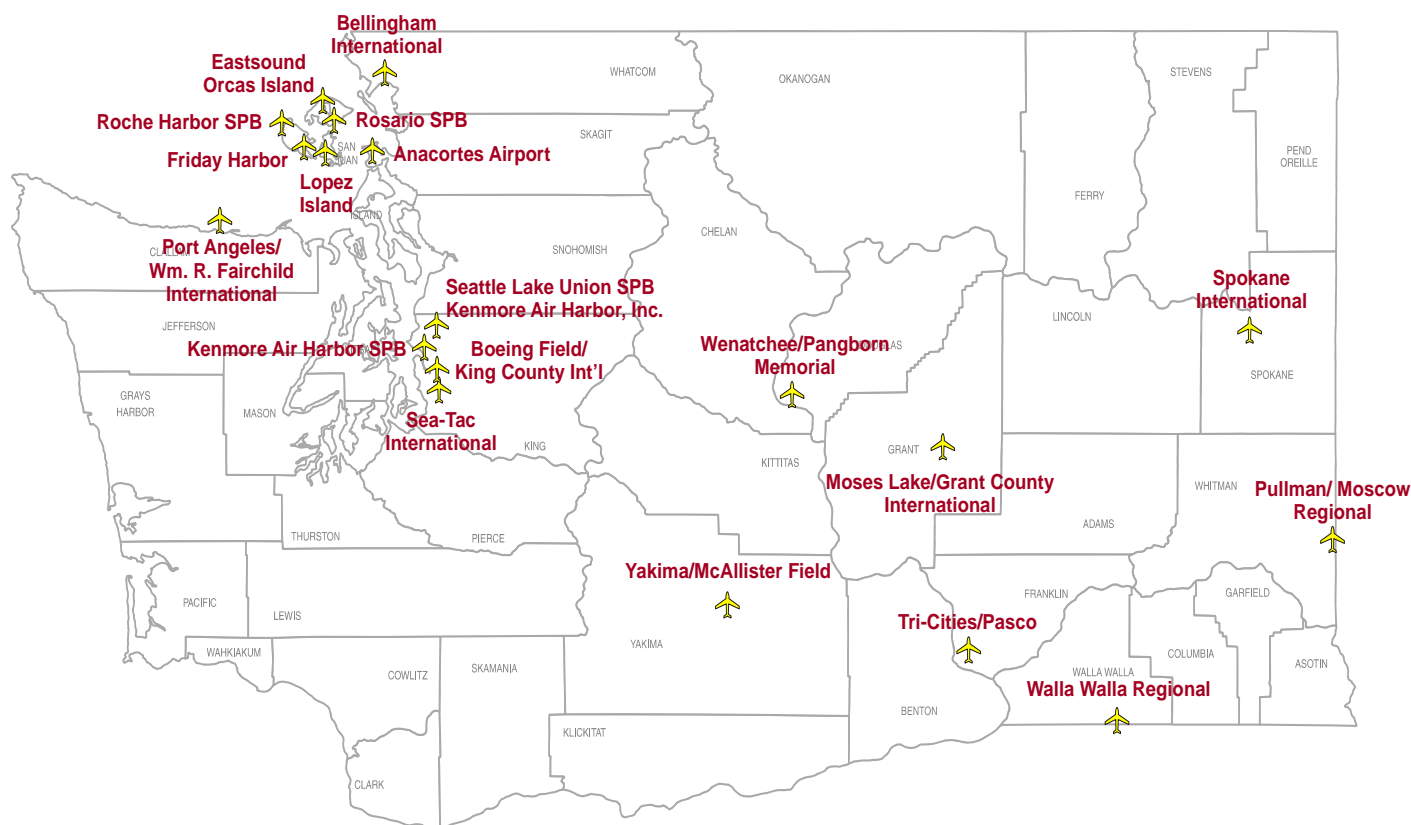
There are 20 airports in Washington State which receive or have recently received scheduled commercial passenger air service. These airports are defined in this report as "Commercial Service Airports".

Figure 48: Commercial Service Airports in Washington State¹⁹

Anacortes	Pullman/Moscow Regional
Bellingham International	Roche Harbor SPB
Boeing Field/King County Int'l	Rosario SPB
Friday Harbor	Sea-Tac International
Grant County International	Spokane International
Kenmore Air Harbor, Inc.	Tri-Cities
Kenmore Air Harbor SPB	Walla Walla Regional
Lopez Island	Wes Lupien
Orcas Island	Wm. R. Fairchild International
Pangborn Memorial	Yakima Air Terminal

¹⁹ The abbreviation "SPB" refers to Seaplane Bases

Figure 49: Commercial Service Airports in Washington State



The vast majority of Washington State commercial air transport traffic and activity is concentrated at two airports: Seattle-Tacoma International Airport (“SeaTac”) and Spokane International Airport, which combined account for more than 96 percent of the state’s enplanements and 67 percent of its commercial aircraft operations.

**Figure 50: Commercial Service Airports in Washington State,
Ranked by Enplanements
CY 2006²⁰**

Airport	Passenger Enplanements	Share of Total	Cumulative Share
Sea-Tac International	14,981,560	86.6%	86.6%
Spokane International	1,617,895	9.4%	96.0%
Tri-Cities	225,880	1.3%	97.3%
Bellingham International	136,448	0.8%	98.1%
Yakima Air Terminal	55,506	0.3%	98.4%
Boeing Field/King County Int'l	52,447	0.3%	98.7%
Pangborn Memorial	39,798	0.2%	99.0%
Kenmore Air Harbor SPB	34,000	0.2%	99.2%
Walla Walla Regional	28,260	0.2%	99.3%
Pullman/Moscow Regional	23,680	0.1%	99.5%
Wm. R. Fairchild International	16,034	0.1%	99.5%
Wes Lupien	13,500	0.1%	99.6%
Friday Harbor	12,500	0.1%	99.7%
Grant County International	12,417	0.1%	99.8%
Rosario SPB	11,000	0.1%	99.8%
Kenmore Air Harbor, Inc.	10,000	0.1%	99.9%
Lopez Island	7,500	0.0%	99.9%
Orcas Island	4,800	0.0%	100.0%
Roche Harbor SPB	4,000	0.0%	100.0%
Anacortes	2,930	0.0%	100.0%
Total	17,290,155	100.0%	100.0%

*Sea-Tac accounts for
87% of Washington
State's commercial
passenger traffic*

Sea-Tac in particular drives aviation activity in the state. As of April 2007, Sea-Tac offered scheduled service to 71 destinations in the United States and 16 outside the U.S. 25 airlines currently offer scheduled passenger service at Sea-Tac. Alaska Airlines and its code-sharing regional partner carrier, Horizon, have their primary connecting hub at Sea-Tac, and provide more than 50 percent of the airport's seat capacity. In CY 2006, Sea-Tac accommodated 15 million enplanements – 87 percent of the total passenger traffic in Washington State – and 336,000 commercial aircraft operations.

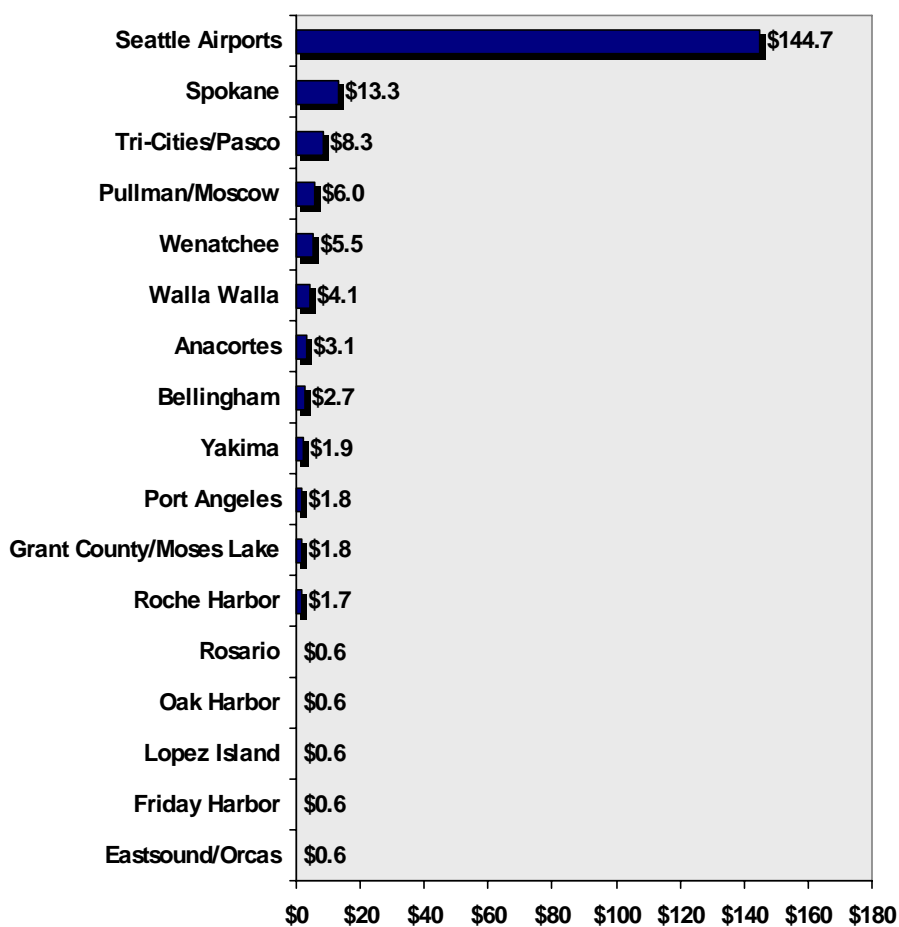
The concentration of traffic and activity at Sea-Tac reflects in part the major socio-economic concentrations in the state, with Seattle's primary service area²¹ – King, Snohomish, Pierce, Thurston, Mason and Jefferson Counties – accounting for 56 percent of the state's population, 65 percent of the state's income, and among the highest per capita incomes in the state. Nearly 4 million people live within 60 miles of Sea-Tac, and nearly 3 million live within 30 miles.²²

²⁰ Sources: Data provided by airports, Federal Aviation Administration Terminal Area Forecasts (TAF), and US DOT T100. Data for Roche Harbor and Anacortes is for 2005.

²¹ Service areas include counties within 90 miles for large hub airports, within 60 miles for medium hub airports and within 30 miles for small or non-hub airports.

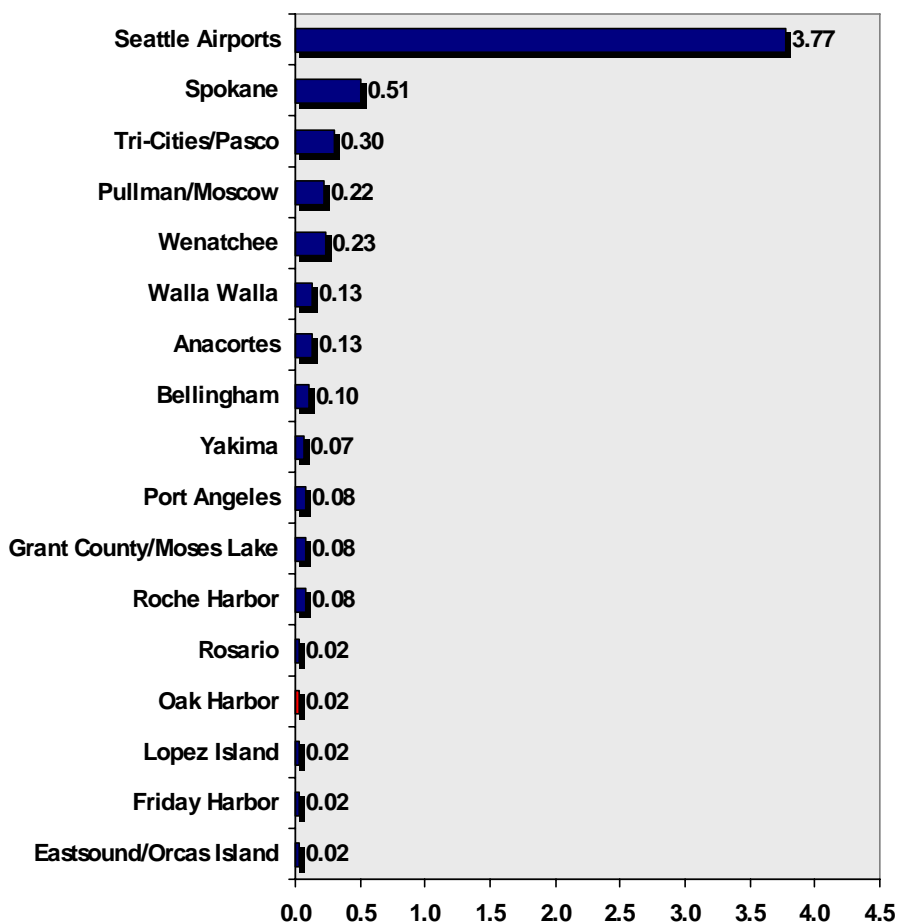
²² Source: NPA Data Services.

**Figure 51: Total Income in Washington State Airport
Core Service Areas**
In Millions, 2005²³



²³ Source: NPA Data Services. Service areas include counties within 90 miles for large hub airports, within 60 miles for medium hub airports and within 30 miles for small or non-hub airports.

**Figure 52: Total Population in Washington State Airport
Core Service Areas**
In Millions, 2005²⁴



*Sea-Tac attracts
substantial “leakage” –
local passenger traffic
from other Washington
State airport service
areas*

Sea-Tac’s share of air service in Washington State significantly exceeds its share of the state’s population: it accounts for 87 percent of seat departures in the state, but only 56 percent of its population. This is explained by two factors: 1) more than one quarter of the airport’s enplanements is connecting traffic, which is not generated locally, and 2) since Sea-Tac is far and away the largest airport in the state, it attracts passengers from outlying areas.²⁵ That is important because Sea-Tac is likely to continue to be the most important airport in Washington State in the future, and will likely continue to attract passenger traffic from other Washington State airports’ service areas. However, some of this “leakage” traffic potentially could be recaptured by local airports were local air service to be increased.

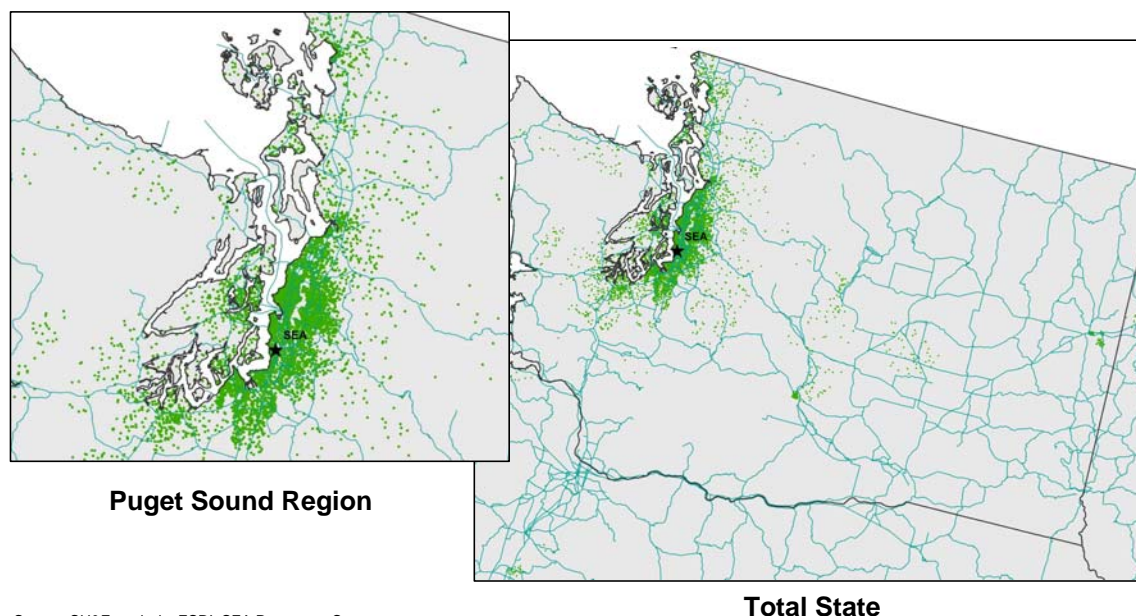
²⁴ Source: NPA Data Services. Service areas include counties within 90 miles for large hub airports, within 60 miles for medium hub airports and within 30 miles for small or non-hub airports.

²⁵ Source: Official Airline Guide, April 2007.

Figure 53: Sea-Tac Draws Passengers from Throughout the State

SEA-TAC Survey Passengers by Ground Origin

One Dot Represents 1,000 Passengers



Source: SH&E analysis, ESRI, SEA Passenger Survey

Figure 54: Scheduled Passenger Air Service Characteristics at Washington State Airports

April 2007²⁶

Airport	Total Weekly Seat Departures	Percent of Total State	Total Weekly Aircraft Departures	Percent of Total State	Number of Nonstop Destinations
Sea-Tac International	368,640	85.4%	3,212	70.5%	87
Spokane International	43,387	10.1%	448	9.8%	13
Tri-Cities	6,253	1.4%	126	2.8%	6
Bellingham International	4,668	1.1%	70	1.5%	3
Yakima Air Terminal	1,554	0.4%	42	0.9%	1
Boeing Field/King County Int'l	1,344	0.3%	192	4.2%	5
Pullman/Moscow Regional	1,036	0.2%	28	0.6%	2
Pangborn Memorial	1,036	0.2%	28	0.6%	1
Kenmore Air Harbor SPB	896	0.2%	112	2.5%	3
Walla Walla Regional	873	0.2%	27	0.6%	2
Wes Lupien	462	0.1%	66	1.4%	3
Roche Harbor SPB	336	0.1%	56	1.2%	1
Rosario SPB	336	0.1%	56	1.2%	1
Wm. R. Fairchild International	294	0.1%	42	0.9%	1
Orcas Island	168	0.0%	24	0.5%	2
Lopez Island	168	0.0%	28	0.6%	1
Grand Total	431,451	100.0%	4,557	100.0%	96

²⁶ Source: Official Airline Guide, April 2007. Note: Total number of nonstop destinations for the entire State of Washington is non-duplicative, and therefore is less than the sum of the number of nonstop destinations served at each airport.

Scope of Forecasts

Full forecasts of passenger enplanements and commercial aircraft operations were developed for 17 of Washington State's 20 commercial service airports and seaplane bases.²⁷

Figure 55: Commercial Service Airports With Full Forecasts

Anacortes	Roche Harbor SPB
Bellingham International	Rosario SPB
Boeing Field/King County Int'l	Spokane International
Kenmore Air Harbor, Inc.	Tri-Cities
Kenmore Air Harbor SPB	Walla Walla Regional
Lopez Island	Wes Lupien
Pangborn Memorial	Wm. R. Fairchild International
Pullman/Moscow Regional	Yakima Air Terminal

The 25-year forecast period extends from 2006 to 2030, with 2005 used as a base year.

These forecasts were prepared to determine whether future commercial service activity can effectively be accommodated by a state system of commercial airports.

At three of Washington's commercial service airports – Sea-Tac, Grant County/Moses Lake Airport and Friday Harbor – the study team adopted recent forecasts utilized in airport planning efforts and approved by the Federal Aviation Administration (FAA). At Sea-Tac, the study team is utilizing the 2005 FAA Terminal Area Forecast of traffic and operations at the airport. As a result, there was no need to develop a separate traffic and activity forecast for these facilities in these three cases.²⁸

The forecasts for each of Washington's commercial service airports cover the following items:

- **Air Carrier Enplanements:** Passenger boardings on aircraft typically operated by air carriers, with more than 70 seats in capacity.²⁹

The forecasts for each airport include air carrier and commuter enplanements and aircraft operations

²⁷ Separate, previously completed forecasts were employed for Sea-Tac, Moses Lake/Grant County, and Friday Harbor airports.

²⁸ The approved forecasts for these three airports, for the period 2006-2025, were simply extrapolated to the year 2030 to correspond with the forecast period for the other commercial service airports in Washington State.

²⁹ The Federal Aviation Administration defines "commuter" aircraft as having fewer than 60 seats. However, in this analysis, SH&E has categorized aircraft with up to 70 seats capacity – such as the ERJ-170, CRJ-700 and Dash 8 Q-

- **Commuter/Air Taxi Enplanements:** Passenger boardings on aircraft typically operated by regional airlines or air taxi operators, with 70 seat or lower capacity.¹
- **Air Carrier Operations:** Takeoffs and landings by air carrier aircraft.
- **Commuter/Air Taxi Operations:** Takeoffs and landings by aircraft operated by regional airlines or air taxi operators.

It is important to note that these forecasts were developed for the overall Washington State air transportation system, and are not intended to replace forecasts that may be prepared as part of airports' other planning efforts.

Forecast Methodology

Our approach to these airport forecasts follows three sequential steps:

1. Forecast changes in passenger enplanements, the key driver of air service
2. Estimate future allocation of enplanements between “Air Carrier” and “Commuter/Air Taxi”
3. Estimate aircraft operations needed to accommodate projected passenger traffic, taking into consideration trends in aircraft size and load factors (e.g., the percentage of seats occupied by passengers).

Forecasting Changes in Passenger Enplanements

For larger airports in Washington State, econometric methodology was employed to project future levels of passenger enplanements at each airport. Three specific approaches were employed:

- **“Time-Series” Approach:** This approach to forecasting traffic essentially assumes that historic growth trends over time will continue into the future.

400 – as “commuter” aircraft as well, as they are either 1) derivatives of smaller commuter aircraft and typically operated in the same manner as such aircraft, and/or 2) operated by regional airlines, such as Alaska Airlines’ partner, Horizon.

- **Correlation With Local Economic Indicators:** This approach first defines mathematically the historic correlation between changes in traffic and changes in total income in each airport's service area. Forecasts of income growth by county are then input into the correlation equations to forecast future levels of passenger enplanements.
- **Relationship Between Income and Traffic Growth at Each Airport, Relative to the Total U.S.:** Historic trends in income and enplanement growth at each airport were compared with the United States as a whole, and the resulting relationships defined by equations. Forecasts of income growth in each airport's service area relative to the U.S. as a whole were then input into the equations in order to project future enplanement growth at each airport, based on FAA projections for nationwide traffic growth.

Our enplanement forecasts for each airport are generally based on an average of the projections established by each of the 3 methodologies described above.

Airports where this methodology was employed include Spokane, Walla Walla, Boeing Field, Pullman/Moscow, Yakima, Wenatchee/Pangborn, Bellingham and Pasco/Tri-Cities.

At many of the smaller airports in Washington State, a different forecasting approach was employed. In most cases, changes in traffic and service at these airports were not caused by underlying community economic factors, but rather by independent business decisions made by the small number of carriers serving these airports. Therefore, a traffic forecast based on correlation with economic activity in these regions could risk being misleading or inaccurate.

At smaller commercial service airports where traffic has declined since the mid-1990's, it was assumed that traffic would not necessarily continue to decline in the future. These forecasts assume instead that traffic will return to a level approximating average annual enplanements at the airport over the past 10-15 years. This approach produces moderate growth over the 25-year forecast period, but results in future traffic levels that remain below peak year traffic in the 1990's.³⁰

Airports where this forecast methodology was employed include Anacortes, Port Angeles and Eastsound/Orcas Island.

³⁰ At Yakima, SH&E projects higher growth surpassing historic traffic levels, given the pending introduction of new Delta Connection regional jet service in June 2007.

For the remaining commercial seaplane bases (SPB) and commercial San Juan Island airports – Kenmore Air Harbor, Inc., Kenmore Air Harbor, SPB, Rosario SPB and Roche Harbor SPB, as well as Wes Lupien and Lopez Island airports – forecasts were based on detailed discussions with air taxi operators serving these facilities, as well as airport management.

Forecasting Changes in Passenger Aircraft Operations

Projections of future operations are based on a determination of the capacity required to accommodate forecast passenger enplanements.

Enplanements were first distributed between “air carrier” and “commuter/air taxi” aircraft at each airport, based on historic trends. Expected changes in load factor, aircraft size and the average number of passengers per departure were then factored in to obtain estimates of air carrier and commuter/air taxi aircraft movements.

Forecast Results

Between 2005 and 2030, passenger enplanements at Washington State’s airports are forecast to increase by 85 percent, from 17 million to 31 million -- or 2.5 percent per year on average. Forecast growth rates vary considerably among the airports, with enplanements at Bellingham, Wenatchee and Friday Harbor projected to grow by more than 140 percent (3.6 percent per year) during the forecast period, while Port Angeles/Wm. R. Fairchild, Grant County/Moses Lake, Wes Lupien, Rosario SPB, Lopez Island and Roche Harbor will see less than 50 percent growth in enplanements.

It is important to note that a number of smaller commercial service airports in Washington State rely on a single air carrier for scheduled service. As a result, these airports may be at some risk for service loss in the future.

Sea-Tac and Spokane enplanements are projected to increase by 82 percent (2.4 percent per year) and 119 percent (3.2 percent per year), respectively between 2005 and 2030.

*Between 2005 and 2030,
enplanements at Washington
State commercial airports are
forecast to increase
from 17 million to
31 million (2.5% per year)*

**Figure 56: Washington State Commercial Service Airports:
Projected Growth in Passenger Enplanements
In Thousands, 2005 – 2030³¹**

Airport	2005	2010	2015	2020	2025	2030	Total % Change 2005- 2030	Avg. Annual % Change 2005-2030
Sea-Tac International	14,632.1	16,526.1	18,700.9	21,095.5	23,727.2	26,611.2	81.9%	2.4%
Spokane International	1,567.5	1,922.8	2,301.4	2,680.0	3,058.7	3,437.3	119.3%	3.2%
Tri-Cities	239.3	255.6	292.9	330.1	367.3	404.5	69.0%	2.1%
Bellingham International	103.2	155.8	180.0	204.2	228.4	252.6	144.8%	3.6%
Yakima Air Terminal	57.5	85.1	90.1	95.3	100.9	106.8	85.8%	2.5%
Boeing Field/King County Int'l	45.1	53.6	58.8	65.0	70.9	76.3	69.2%	2.1%
Pangborn Memorial	38.4	48.6	59.6	70.5	81.5	92.5	140.6%	3.6%
Walla Walla Regional	24.7	31.8	36.0	40.2	44.4	48.6	96.9%	2.7%
Pullman/Moscow Regional	23.1	26.2	29.1	32.0	34.9	37.8	63.8%	2.0%
Wm. R. Fairchild International	18.9	17.8	20.0	22.3	24.5	26.7	41.1%	1.4%
Grant County International	12.4	13.6	14.8	16.0	17.2	18.2	46.5%	1.5%
Seaplane Bases & Small Airports in Puget Sound Region & San Juan Islands:								
Kenmore Air Harbor SPB	34.0	44.9	49.1	51.0	52.9	54.7	60.9%	1.9%
Wes Lupien	13.5	14.1	14.9	15.7	16.6	17.6	30.0%	1.1%
Friday Harbor	12.5	14.9	17.7	21.1	25.0	30.8	146.1%	3.7%
Rosario SPB	11.0	11.3	11.8	12.2	12.7	13.2	20.0%	0.7%
Kenmore Air Harbor, Inc.	10.0	13.2	14.4	15.0	15.5	16.1	61.0%	1.9%
Lopez Island	7.5	7.7	8.0	8.3	8.7	9.0	20.0%	0.7%
Orcas Island	4.5	5.2	5.6	6.0	6.4	6.9	52.9%	1.7%
Roche Harbor SPB	4.0	4.1	4.3	4.5	4.7	4.8	20.0%	0.7%
Anacortes	1.6	2.4	3.2	4.0	4.9	5.7	250.4%	5.1%
Total Washington	16,861	19,255	21,913	24,789	27,903	31,271	85.5%	2.5%

*Commercial passenger
aircraft operations are
projected to increase by 69%
(2.1% per year)*

*At the forecast growth rate
for Sea-Tac passenger
traffic and aircraft activity,
airport management
expects that the airport will
reach capacity by 2024.*

Commercial passenger aircraft operations are expected to grow more slowly than enplanements, as aircraft size, load factors and average passenger loads increase in the future in line with national trends. For the state as a whole, operations are projected to increase 69 percent (2.1 percent per year) between 2005 and 2030. Boeing Field will see the most rapid growth in operations, at 141 percent overall (3.6 percent per year), as services by small commuter aircraft with fewer than 10 seats rapidly increase. Sea-Tac and Spokane are also expected to have relatively high increases in operations, at 85 percent (2.5 percent per year) and 97 percent (2.7 percent per year), respectively. Operations at most other commercial service airports in the state are projected to grow at less than 2 percent per year.

It is important to note that at the projected rate of growth for Sea-Tac passenger traffic and commercial aircraft activity, airport management expects that the airport will reach its capacity limits by 2024.

³¹ Source: SH&E analysis, except for Sea-Tac, Grant County/Moses Lake and Friday Harbor (forecasts produced and accepted, independent of this effort).

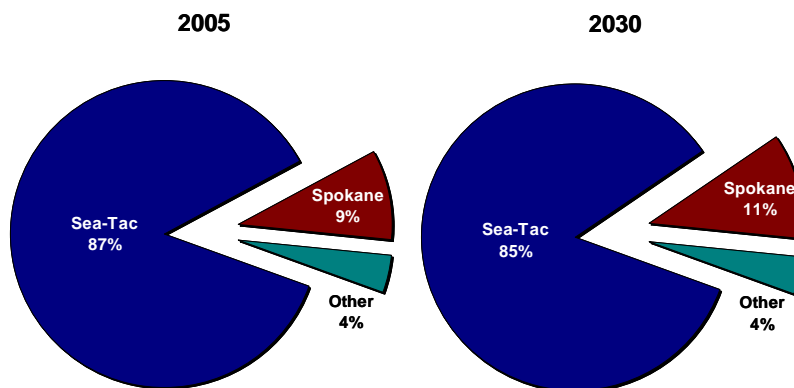
**Figure 57: Washington State Commercial Service Airports:
Projected Growth in Commercial Aircraft Operations
2005 – 2030³²**

Airport	2005	2010	2015	2020	2025	2030	Total % Change 2005- 2030	Avg. Annual % Change 2005-2030
Sea-Tac International	338,757	388,303	438,581	494,639	557,911	627,252	85.2%	2.5%
Spokane International	43,978	50,500	60,100	69,300	78,200	86,500	96.7%	2.7%
Grant County International	24,914	25,146	25,380	25,607	25,815	25,971	4.2%	0.2%
Tri-Cities	24,812	22,000	23,400	24,700	25,900	27,000	8.8%	0.3%
Bellingham International	16,369	19,300	20,400	21,600	22,700	23,700	44.8%	1.5%
Pangborn Memorial	15,018	15,503	16,100	16,700	17,300	17,900	19.2%	0.7%
Wm. R. Fairchild International	6,408	5,100	5,400	5,700	5,900	6,200	-3.2%	-0.1%
Boeing Field/King County Int'l	5,766	10,300	11,100	12,200	13,200	13,900	141.1%	3.6%
Yakima Air Terminal	4,305	5,800	5,700	5,800	5,800	5,800	34.7%	1.2%
Pullman/Moscow Regional	3,552	3,300	3,500	3,600	3,700	3,900	9.8%	0.4%
Walla Walla Regional	2,981	3,300	3,500	3,600	3,800	4,000	34.2%	1.2%
Seaplane Bases & Small Airports in Puget Sound Region & San Juan Islands:								
Kenmore Air Harbor SPB	25,400	33,500	36,700	38,100	39,500	40,900	61.0%	1.9%
Kenmore Air Harbor, Inc.	21,000	27,700	30,300	31,500	32,600	33,800	61.0%	1.9%
Friday Harbor	10,600	10,900	11,300	11,700	12,200	12,800	20.8%	0.8%
Orcas Island	5,466	5,300	5,300	5,400	5,500	5,600	2.5%	0.1%
Wes Lupien	5,000	5,200	5,500	5,800	6,200	6,500	30.0%	1.1%
Rosario SPB	5,000	5,200	5,400	5,600	5,800	6,000	20.0%	0.7%
Lopez Island	5,000	5,200	5,400	5,600	5,800	6,000	20.0%	0.7%
Roche Harbor SPB	2,300	2,400	2,500	2,600	2,700	2,800	21.7%	0.8%
Anacortes	1,136	1,600	2,100	2,500	2,900	3,200	181.7%	4.2%
Total Washington	567,762	645,552	717,661	792,246	873,426	959,723	69.0%	2.1%

*For the foreseeable
future, passenger
traffic in Washington
State will remain highly
concentrated at Sea-
Tac and Spokane*

Passenger traffic in Washington State is projected to remain highly concentrated at Sea-Tac and Spokane airports for the foreseeable future. Our forecast projects that in 2030, Sea-Tac will still account for 85 percent of the state's total enplanements, and Spokane will account for an additional 11 percent.

**Figure 58: Washington State Commercial Service Airports:
Share of Total State Passenger Enplanements
2005 Actual vs. 2030 Projected**



³² Source: SH&E analysis, except for Sea-Tac, Grant County/Moses Lake and Friday Harbor (forecasts produced and accepted, independent of this effort). Note: Historic and forecast operations at Grant County/Moses Lake include air

Sea-Tac and Spokane are both expected to continue to attract passenger “leakage” traffic from smaller airports, although Tri-Cities/Pasco may well attract passengers from the nearby Walla Walla and Wenatchee regions as well.

Profile of Individual Airports

Seattle-Tacoma International (SEA)

*25 airlines offer
nonstop passenger
service to 87
destinations from
Sea-Tac, with about
460 scheduled
departures each day*

Seattle-Tacoma International Airport (“Sea-Tac”) is by far the most important airport in Washington State. It handled 15 million passenger enplanements and 336,000 aircraft operations in CY 2006.³³ Sea-Tac ranked 18th among North American airports in 2006 in terms of passenger enplanements, and 29th in terms of aircraft operations.³⁴

The airport hosts 25 scheduled passenger air carriers, including each of the U.S. majors, three of their code-share regional partners, four low cost carriers (“LCC’s”), and eight foreign airlines. These carriers provide scheduled service to 87 nonstop destinations in total, including 71 in the United States and 16 outside the U.S. On an average day, Sea-Tac accommodates about 460 scheduled passenger aircraft departures.

Figure 59: Scheduled Airlines Serving Sea-Tac, April 2007³⁵

U.S. Majors	U.S. Regional Partners	U.S. Low Cost Carriers	Other U.S. Carriers	Non-U.S. Carriers
Alaska	Horizon (Alaska)	Frontier	Hawaiian	Air Canada
American	Mesa (America West)	jetBlue	Kenmore Air	Air Canada Jazz
Continental	SkyWest (Delta & United)	Southwest	Midwest	Asiana
Delta		Sun Country		British Airways
Northwest				China Airlines
United				EVA Airways
US Airways-America West				Korean Air
				SAS

As of April 2007, 63 percent of Sea-Tac’s scheduled passenger aircraft departures were made by full-size jet aircraft, and 37 percent were made by regional jets, turboprops or other propeller-driven aircraft. Full-size jet aircraft accounted for 85 percent of available scheduled seats, while

carrier testing/training and freighter operations.

³³ Source: Port of Seattle. Operations data here includes cargo aircraft and non-commercial aircraft.

³⁴ Source: ACI-NA

³⁵ Southwest Airlines, a low cost carrier, is also a U.S. major.

commuter/air taxi aircraft accounted for 15 percent. It should be noted, however, that commuter aircraft have been increasing their share of passenger traffic at Sea-Tac over time, carrying an estimated 12 percent of domestic U.S. passenger enplanements in 2006, compared to only 4 percent 20 years earlier.

Alaska and Horizon collectively account for 50% of scheduled seats at Sea-Tac

No single carrier completely dominates activity at Sea-Tac, in contrast to many of Washington State's smaller commercial airports. However, Alaska Airlines and its partner, Horizon, account for the largest share of activity and capacity at Sea-Tac, with a combined 50 percent of scheduled seats as of April 2007. Sea-Tac serves as Alaska's and Horizon's primary connecting hub airport. Low cost carriers ("LCC's"), predominantly Southwest, account for 12 percent of scheduled seats at Sea-Tac as of April 2007.

Figure 60: Share of Scheduled Seats by Carrier, April 2007³⁶

Airline	Share of Seats	Airline	Share of Seats
Alaska	37.6%	China Airlines	0.7%
Horizon	12.7%	United Express/Skywest	0.6%
Southwest	10.2%	jetBlue	0.6%
United	8.6%	SAS	0.5%
Northwest	6.1%	Air Canada Jazz	0.4%
Delta	5.2%	Delta Connection/SkyWest	0.3%
American	4.9%	Kenmore Air	0.3%
Continental	3.5%	Asiana	0.3%
US Airways- America West	2.6%	Korean	0.2%
Hawaiian	1.2%	Sun Country	0.2%
Frontier	0.9%	Air Canada Jazz	0.2%
British Airways	0.9%	America West Express/Mesa	0.2%
EVA Airways	0.7%	Midwest	0.2%

Passenger traffic at Sea-Tac grew rapidly and consistently in the 1990's. Between 1990 and 2000, passenger enplanements grew at an average annual rate of 5.6 percent. During this period, Alaska/Horizon doubled its scheduled capacity, growing from 92,000 seat departures per week in 1990 to 187,000 by 2000.

Sea-Tac has successfully attracted many new carriers since 1990, including low cost carriers and non-U.S. carriers

Sea-Tac was quite successful in the 1990's attracting new carriers, which contributed considerably to its traffic growth. Southwest entered the market in 1994, followed by other LCC's, including Frontier in 1996, Sun Country in 1999 and jetBlue in 2001. Sea-Tac has also successfully attracted Asian carriers, with EVA Airways entering the market in 1993, Asiana in 1995 and ultimately China Airlines in 2004.

³⁶ Source: Official Airline Guide.

However, the strong growth of the 1990's came to a temporary halt in the wake of the 9/11 terrorist attacks, in common with most airports in the United States, as air carriers reduced capacity across the board. Between 2000 and 2002, total scheduled seats offered at Sea-Tac fell by 15 percent, and declined an additional 9 percent by 2005.

Between 2005 and 2030, Sea-Tac enplanements are forecast to grow from 14.6 million to 26.6 million (2.4% per year), and operations are forecast to grow from 339 thousand to 627 thousand (2.5% per year)

Nonetheless, in spite of the tightening capacity, passenger traffic at Sea-Tac has begun to rebound. Between 2002 and 2006, passenger enplanements grew 12 percent.

Sea-Tac Forecast Results

Passenger enplanements are forecast to grow 82 percent (2.4 percent per year), from 14.6 million to 26.6 million, between 2005 and 2030. Commuter/air taxi enplanements are expected to grow slightly more rapidly than air carrier enplanements, at 2.7 percent per year vs. 2.4 percent, respectively. Commuter/air taxi share of total enplanements will increase slightly from 13 percent in 2005 to 14 percent by 2030.

Commercial aircraft operations are forecast to increase 85 percent (2.5 percent per year), from 339,000 to 627,000, between 2005 and 2030. Commuter/air taxi operations are forecast to grow at 2.8 percent per year, while air carrier operations will grow at 2.4 percent. Between 2005 and 2030, commuter/air taxi share of total commercial passenger operations at Sea-Tac will increase from 25 percent to 27 percent.

At these projected rates of traffic and operations growth, airport management expects that Sea-Tac will reach its capacity limits by the year 2024.

Figure 61: Seattle-Tacoma International Airport Forecast Details

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1976	3,313,122	68,742	3,381,864	114,998	31,818	146,816
1980	4,513,298	65,149	4,578,447	143,646	40,681	184,327
1985	5,574,230	109,207	5,683,437	158,904	56,954	215,858
1990	7,530,561	695,359	8,225,920	193,482	150,376	343,858
1995	10,087,359	1,303,162	11,390,521	226,190	149,444	375,634
2000	12,486,419	1,687,333	14,173,752	236,355	203,723	440,078
2005	12,786,234	1,845,903	14,632,137	254,829	83,928	338,757
2006	13,073,028	1,908,532	14,981,560	253,507	82,147	335,654
2010	14,473,997	2,052,082	16,526,079	292,196	96,107	388,303
2015	16,315,084	2,385,859	18,700,943	326,739	111,842	438,581
2020	18,337,670	2,757,814	21,095,484	365,365	129,274	494,639
2025	20,557,957	3,169,221	23,727,178	409,357	148,554	557,911
2030	23,000,058	3,611,097	26,611,155	457,986	169,266	627,252

Figure 62: Seattle-Tacoma International Airport Historic and Projected Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1976-2005	5.6%	14.1%	6.0%	3.2%	4.0%	3.4%
Forecast:						
2005-2030	2.4%	2.7%	2.4%	2.4%	2.8%	2.5%

Spokane International (GEG)

Spokane has a 9% share of the state's total passengers, and is served by most of the U.S. majors or their regional partners, as well as low cost carrier Southwest

Spokane carries more commercial passenger traffic than any other airport in Washington State with the exception of Sea-Tac. In 2006, the airport accommodated about 1.6 million passenger boardings, approximately 9 percent of the Washington State total.

Spokane is currently served by both mainline jets and commuters, with representation by many of the US majors, including United, Northwest, Delta, Alaska and America West (US Airways), as well as low cost carrier Southwest. As of April 2007, mainline jets accounted for 48 percent of scheduled passenger aircraft operations, and 68 percent of scheduled seats, while commuter aircraft accounted for 52 percent of scheduled frequencies and 32 percent of scheduled seats. Commuters have increased their share of scheduled operations at GEG over the past 10 years, growing from only 14 percent in 1998 to 52 percent by 2007³⁷. As of April, 2007, Southwest and Alaska/Horizon each held a 34 percent-35 percent share of scheduled seats at the airport.

Southwest and Alaska/Horizon each hold about a 34%-35% share of scheduled seat capacity

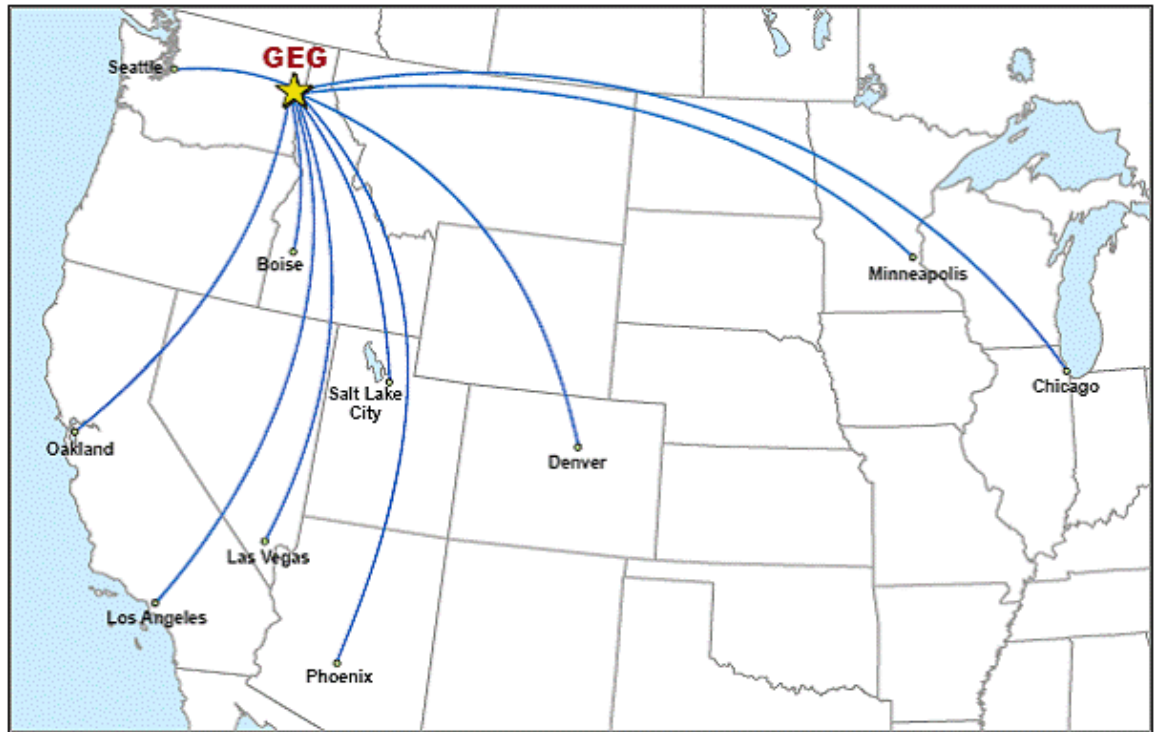
Figure 63: Share of Scheduled Seats by Carrier, April 2007³⁸

Airline	Share of Seats
Southwest	34.4%
Horizon	20.0%
Alaska	14.8%
United	7.7%
Northwest	4.8%
America West	4.2%
Delta Connection	4.0%
United Connection	2.7%
All Other	7.4%
Total	100.0%

³⁷ Source: Official Airline Guide.

³⁸ Source: Official Airline Guide.

Nonstop air carrier service is provided to major carrier hubs in the U.S. Midwest and western regions (Chicago, Minneapolis, Denver, Phoenix, Salt Lake City, Seattle) as well as regional destinations in the northwest U.S. (Seattle, Boise) and important destinations in California and the U.S. southwest (Las Vegas, Oakland, Ontario, Sacramento and Los Angeles).



Passenger traffic at Spokane grew rapidly in the late 1980's and early 1990's, with a number of carriers entering the market and growing their operations. Most notably, Horizon entered the market in 1988 with 219 weekly departures, increasing to 695 by 1993. United also peaked in 1993 with 110 weekly departures. Southwest entered the market in 1994 with 55 weekly flights, growing to 125 by 1997.

Spokane passenger enplanements peaked in 1996 at 1.6 million, but began to decline gradually thereafter as airlines began to cut back their operations; this decline was hastened in the aftermath of the 9/11 terrorist attacks. Between 1996 and 2002, traffic declined 18 percent. Horizon reduced its weekly departures to 124 by 2005, although frequency reduction was somewhat mitigated by its replacement of 19 passenger Metros with larger 37 passenger Dash 8-200 turboprops in the mid-1990's, and 74 seat Dash 8-Q400 aircraft beginning in 2001. Southwest, United, Delta and Northwest cut their mainline capacity, although in the

case of United this was offset to a certain extent by the reentry of United Express into the market in 1999³⁹.

There has been a rebound in traffic and service in recent years, with passenger enplanements at Spokane growing 21 percent between 2002 and 2006⁴⁰.

Spokane Forecast Results

Spokane is expected to remain a strong market, and continue to attract “leakage” traffic from other Washington airports

Spokane is projected to remain a strong market, as it currently attracts more than its “fair share” of air service, receiving 10 percent of the state’s scheduled seats although the surrounding service area accounts for 6 percent of Washington State total income and 8 percent of the state’s population. Spokane has successfully attracted “leakage” traffic from the service areas of other airports in central and eastern Washington.

Spokane passenger enplanements are projected to grow from 1.6 million to 3.4 million (3.2% per year) and operations are forecast to grow from 44 thousand to 87 thousand (2.7% per year) between 2005 and 2030

In addition, although there was a decline in traffic between 1996 and 2002, Spokane’s overall growth trend has been relatively consistent over the long term. Finally, real income in Spokane’s primary service area – Spokane, Stevens, Pend Oreill and Lincoln Counties -- is expected to grow consistently for the duration of the forecast period at an average of 2.5 percent per year.

This forecast projects that total passenger enplanements will grow 119 percent (3.2 percent per year), from 1.6 million in 2005 to 3.4 million in 2030. This projected growth rate matches Spokane’s historic 1976-2005 enplanement growth rate.

Operations are expected to grow more slowly, with a forecast increase of 97 percent (2.7 percent per year) between 2005 and 2030. Most of the operations growth will be provided by commuter aircraft: commuter operations are projected to grow at nearly 4 percent per year, compared to only 1.2 percent per year for air carrier aircraft. As a result, air carrier aircraft share of total commercial passenger operations is expected to decrease from 49 percent of total operations in 2005 to about 33 percent of total operations by 2030, continuing a long-term trend at Spokane.

³⁹ Source: Official Airline Guide.

⁴⁰ Source: Official Airline Guide.

Figure 64: Spokane Forecast Details⁴¹

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1976	616,624	13,754	632,354			
1980	762,642	18,238	782,860			
1985	568,000	82,116	652,101			
1990	755,014	50,563	807,567			
1995	914,976	579,719	1,496,690			
2000	1,145,898	387,394	1,535,292			
2005	1,031,872	533,657	1,567,534	21,314	22,664	43,978
2006E	1,083,900	534,000	1,617,900	21,000	21,600	42,500
2010	1,188,200	732,600	1,922,800	22,700	27,800	50,500
2015	1,324,200	975,200	2,301,400	24,800	35,300	60,100
2020	1,435,900	1,242,100	2,680,000	26,400	43,000	69,300
2025	1,525,800	1,530,800	3,058,700	27,600	50,600	78,200
2030	1,596,500	1,838,800	3,437,300	28,400	58,100	86,500

Figure 65: Spokane Historic and Projected
Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1976-2005	1.8%	13.4%	3.2%	--	--	--
Forecast:						
2005-2030	1.8%	5.1%	3.2%	1.2%	3.8%	2.7%

Tri-Cities/Pasco (PSC)

At Tri-Cities/Pasco, the third most important passenger airport in the state, 98% of scheduled frequencies are flown by commuter aircraft

Horizon holds a 50% share of PSC's scheduled seats

Tri-Cities/Pasco is the third ranked commercial service airport in Washington State in terms of passenger boardings, with an estimated 226,000 enplanements in 2006.

The airport is currently served by both full size jets and commuters. However, the vast majority of its scheduled service and capacity is provided by commuter aircraft: at present, commuters account for 98 percent of scheduled frequencies and 93 percent of scheduled seats. The only full size scheduled jet service is provided by Allegiant Air, which offers 3 MD-80 frequencies per week from Tri-Cities/Pasco to Las Vegas.

Major US carriers are represented at Tri-Cities/Pasco by their regional airline partners, including Alaska (Horizon), Delta (Skywest) and United

⁴¹ Sources: FAA Terminal Area Forecasts and US DOT T100 for historical, SH&E analysis for forecast. Traffic and operations for 2006 are an estimate, based on US DOT T100 data for Year Ending October 2006. Breakdown by type of activity for prior years not available.

(Skywest). Horizon remains the by far the most important carrier at Tri-Cities/Pasco, with 57 percent of its scheduled frequencies and 50 percent of its scheduled seats⁴².

Figure 66: Tri-Cities/Pasco Share of Scheduled Frequencies and Seats by Carrier
*April 2007*⁴³

Airline	Share of Frequencies	Share of Seats
Horizon	57.1%	49.5%
Delta Connection	24.6%	25.1%
United Express	15.9%	18.2%
Allegiant	2.4%	7.2%
Total	100.0%	100.0%

Currently, United Express and Delta Express employ regional jets on their Tri-Cities/Pasco services, while Horizon uses both 37-seat Dash 8-200 turboprops and 70-seat Dash 8 Q-400's.

Tri-Cities/Pasco passenger traffic has grown consistently over the long term

Passenger traffic at Tri-Cities/Pasco has grown relatively consistently over time, averaging 2.7 percent per year between 1992 and 2005. Service frequencies have declined slightly, however, at about 0.7 percent per year between 1992 and 2005.

Delta entered the Tri-Cities/Pasco market in 1988, offering full size jet service to Salt Lake City with about 28 weekly departures throughout most of the 1990's. More recently, Delta has exited in favor of Delta Connection commuter service, at about the same overall frequency level.

Horizon entered the market in 1989, and by 1991 offered more than 300 departures per week. More recently, however, it has scaled back and now offers 72 weekly departures as of April 2007. Horizon also transformed its service model from serving multiple airports on every flight, which had resulted in very short sector lengths and high frequencies. Horizon's current service model is to provide nonstop service primarily to Alaska Airlines' hub at Seattle.

PSC has recently attracted new full-size jet service by Allegiant

United Express has also scaled back its operations at Tri-Cities/Pasco, from 68 weekly frequencies as recently as 1998, to 20 as of April 2007.

Both Horizon's and United Express' service cutbacks coincided with the introduction of larger capacity aircraft into the market. In the mid-1990's,

⁴² Source: Official Airline Guide.

⁴³ Source: Official Airline Guide.

Horizon replaced its 19-seat Metro turboprops with 37-seat Dash-8's, and United Express upgauged from 30-seat EMB-120 turboprops to 50-seat Canadair CRJ-200 and 70-seat CRJ-700 regional jets.



Allegiant entered the Tri-Cities market in 2005 with nonstop full-size jet service to Las Vegas, employing MD-80 equipment. Service frequency is 3 times per week as of April 2007.

Tri-Cities/Pasco Forecast Results

This forecast predicts that enplanements at Tri-Cities/Pasco will grow from 239,000 in 2005 to 405,000 by 2030, a 69 percent increase (2.1 percent per year). Most of this growth will be provided by commuter aircraft, and as a result, commuter traffic is projected to grow from 72 percent of total enplanements in 2005 to 92 percent by 2030.

Total commercial passenger aircraft operations are expected to grow moderately over the forecast period, increasing only about 9 percent from 25,000 to 27,000 (0.3 percent per year) between 2005 and 2030. Air carrier aircraft share of total operations is expected to remain small at 2.2 percent in 2030, compared to 1.7 percent in 2005. In contrast, scheduled

commuter operations are expected to increase nearly 40 percent (1.2 percent per year) by 2030, with commuter aircraft share of total commercial operations increasing from about 59 percent to 66 percent over the forecast period. Air taxi operations account for the remaining operations.

Tri-Cities/Pasco is expected to remain a strong and growing market, with a number of important advantages:

- Tri-Cities/Pasco is the most important commercial service airport in southeastern Washington and the third most important commercial service airport in Washington overall
- Historic long-term enplanement growth has been relatively consistent
- Tri-Cities/Pasco has been reasonably successful in minimizing leakage over time, capturing an estimated 60 percent-70 percent of the traffic originating in its service area. It has also been successful in attract “leakage” traffic from other airports in southeast Washington.
- Real income in the airport’s service area – Franklin and Benton Counties – is projected to grow at a strong 3.3 percent per year on average through 2030.

Figure 67: Tri-Cities/Pasco Forecast Details⁴⁴

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
1992			170,022				27,042
1993			176,726				26,232
1994			188,093				23,639
1995			168,245				20,564
1996			175,376				21,041
1997			182,978				25,199
1998			197,268				26,445
1999			202,408				52,936
2000			209,434				28,085
2001			203,188				24,715
2002			210,351				25,549
2003	53,200	150,529	203,729	1,374	12,344	11,215	24,933
2004	2,763	213,115	215,878	64	15,584	9,843	25,491
2005	66,814	172,506	239,320	1,508	13,252	10,052	24,812
2006E	19,700	206,100	225,900	400	12,500	8,500	21,500
2010	21,700	233,900	255,600	400	13,100	8,500	22,000
2015	24,900	268,000	292,900	500	14,400	8,500	23,400
2020	28,000	302,000	330,100	500	15,700	8,500	24,700
2025	31,200	336,100	367,300	500	16,900	8,500	25,900
2030	34,300	370,100	404,500	600	17,900	8,500	27,000

Figure 68: Tri-Cities/Pasco Historic and Projected Average Annual Growth Rates

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
Historic:							
1992-2005	--	--	2.7%	--	--	--	-0.7%
Forecast:							
2005-2030	-2.6%	3.1%	2.1%	-3.6%	1.2%	-0.7%	0.3%

⁴⁴ Sources: Data provided by Tri-Cities/Pasco Airport, FAA Terminal Area Forecasts and US DOT T100 for historical, SH&E analysis for forecast. Traffic and operations totals for 2006 are actual figures, provided by Tri-Cities/Pasco Airport. SH&E has estimated the historic breakdown between air carrier and commuter/air taxi. Breakdowns by type of activity for prior years not available.

Bellingham International (BLI)

*Bellingham is the fourth
busiest passenger
airport in Washington*

Bellingham is the fourth busiest commercial service airport in Washington State in terms of passenger boardings, with an estimated 136,000 enplanements in 2006. The airport is served primarily by regional air carriers, with commuter aircraft accounting for 77 percent of scheduled departures in 2006.

*Horizon has the largest
share of seat capacity at
BLI by far, at 55%*

Of the U.S. majors, only Alaska and Delta are represented at Bellingham via their code-share partners, Horizon and SkyWest, respectively. However, Horizon's services also carry multiple code-shares with other partner carriers, including Northwest, Continental and even KLM.

Bellingham is heavily dependent on service by Horizon (under Alaska code-share), which as of April 2007 provided 69 percent of the airport's scheduled frequencies and 55 percent of its scheduled seats. Horizon's sole route at present is to Sea-Tac, served 48 times per week with a mix of Dash-8-200 and Dash 8 Q400 turboprop equipment. Delta Connection offers 12 weekly departures to its Salt Lake City hub, with CRJ's⁴⁵.

Figure 69: Bellingham Share of Scheduled Seats by Carrier
April 2007⁴⁶

Airline	Share of Frequencies	Share of Seats
Horizon	68.6%	55.0%
Delta Connection	17.1%	12.9%
Allegiant	14.3%	32.1%
Total	100.0%	100.0%

*BLI has had consistent
traffic growth over the long
term, and has recently
attracted new service by
Delta Connection and
Allegiant*

In recent years, Bellingham has been successful in attracting new carrier service, with Allegiant entering the market in 2004. As of April 2007, Allegiant offers 10 weekly departures to Las Vegas, using MD-80 equipment.

Over the long term, Bellingham's traffic has grown quite rapidly, with an 8.3 percent average annual growth in enplanements between 1976 and 2005. However, during the 1990's, the market contracted, with enplanements falling 55 percent from a peak of 152,000 in 1993 to 68,000 a decade later. Since then, traffic has rebounded, with 136 enplanements recorded in 2006 – a 99 percent increase in three years. 2006

⁴⁵ Source: Official Airline Guide.

⁴⁶ Source: Official Airline Guide.

enplanements at BLI were the highest since 1993, and second highest ever recorded at the airport⁴⁷.

These traffic fluctuations have generally coincided with major service changes at BLI. At the traffic peak in 1993, BLI was served by Horizon with 152 weekly departures. It was also well-served by United Express with 34 weekly departures. Subsequently, Horizon drew down its service, reducing weekly departures to 48 as of April 2007, although it introduced higher capacity Dash 8-200 aircraft at the same time. United Express also pulled out of the market entirely by 2002.

The traffic rebound since 2003 has coincided with Allegiant's entry into the market in 2004, and Delta Connection's entry in 2006⁴⁸.



*Between 2005 and 2030,
BLI passenger traffic is
projected to more than
double, growing from 103
thousand to 253 thousand
(3.6% per year). Operations
are projected to grow from
16 thousand to 24 thousand
(1.5% per year)*

Map does not reflect new service to Columbus, OH added in 2007.

Bellingham Forecast Results

This forecast projects continued strong traffic and capacity growth at Bellingham, although at somewhat slower rates than its long-term historic

⁴⁷ Source: Data provided by Bellingham Airport.

⁴⁸ Source: Official Airline Guide.

growth. Total enplanements are projected to grow 148 percent from 103,000 to 253,000 (3.6 percent per year) from 2005 to 2030. Both air carrier and commuter enplanements will grow, with air carrier traffic increasing at a slightly faster rate – 4.1 percent per year -- than commuter traffic at 3.4 percent per year.⁴⁹

Commercial passenger operations are expected to grow 45 percent, from 16,000 to 24,000, over the duration of the forecast period (1.5 percent per year). Air carrier and commuter aircraft operations are expected to increase relatively rapidly – at 3.7 percent and 3.2 percent per year, respectively – while air taxi operations are assumed to stay relatively constant over the duration of the forecast period. The ratio of air carrier to commuter enplanements is expected to remain the same in the future as in 2006: 33 percent air carrier, 66 percent commuter.

Future growth will be driven by rapid real income growth in Skagit and Whatcom counties, projected at 3.1 percent per year on average between 2005 and 2030.⁵⁰

Figure 70: Bellingham Forecast Details⁵¹

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
1976			10,094				
1980			18,634				
1985			33,698				
1990			109,996				18,417
1995			126,037				21,964
2000			113,925				22,826
2005	30,829	72,383	103,212	495	7,559	8,315	16,369
2006E	45,700	90,700	136,400	700	11,800	5,800	18,300
2010	52,200	103,600	155,800	800	12,700	5,800	19,300
2015	60,300	119,700	180,000	900	13,700	5,800	20,400
2020	68,400	135,800	204,200	1,000	14,800	5,800	21,600
2025	76,500	151,900	228,400	1,100	15,800	5,800	22,700
2030	84,600	168,000	252,600	1,200	16,700	5,800	23,700

⁴⁹ Air carrier and commuter enplanements are projected however to increase at the same average annual rate from 2006 – 2.6%.

⁵⁰ Source: NPA Data Services.

⁵¹ Source: Historical data provided by Bellingham Airport forecast by SH&E. Traffic and operations for 2006 are an estimate, based on US DOT T100 data for Year Ending October 2006. Breakdowns by type of activity for prior years not available.

**Figure 71: Bellingham Historic and Projected
Average Annual Growth Rates**

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
Historic:							
1976-2005	--	--	8.3%	--	--	--	--
Forecast:							
2005-2030	4.1%	3.4%	3.6%	3.7%	3.2%	-1.4%	1.5%

Yakima Air Terminal (YKM)

*Yakima is the fifth-ranked
airport in Washington in
terms of passenger traffic*

Yakima is the 5th ranked commercial service airport in Washington State in terms of passenger traffic, with an estimated 56,000 enplanements in 2006.

At present, scheduled service at Yakima is provided only by Horizon to a single destination, Sea-Tac, with 42 weekly departures using Dash 8 turboprop equipment⁵².

Yakima has lost a substantial amount of traffic and service since the early 1990's. At its peak in 1992, Horizon offered 213 weekly departures, and United Express offered an additional 45. Subsequently, Horizon reduced its service frequency by more than 80 percent -- although this has been offset somewhat by the carrier's use of larger 37-seat Dash-8's from the mid-1990's on to replace 19-seat Metros -- and United Express exited Yakima entirely after 2001.

As a result of these service reductions, passenger traffic at Yakima fell 42 percent between 1991 and 2006. 2006 enplanements, at 56,000, were slightly lower than the 58,000 enplanements the airport accommodated in 1976.

However, there have been some positive developments at Yakima, with Delta Airlines has announced new double daily Delta Connection service between Yakima and Salt Lake City from June 2007. This new service would increase Yakima's scheduled commercial operations by more than 30 percent and increase scheduled seats by more than 40 percent.

*Horizon is now the only carrier
offering scheduled service to
Yakima, but Delta Connection
plans to launch regional jet
service to YKM in June 2007*

⁵² Source: Official Airline Guide.



Map does not reflect new service to Salt Lake City in 2007.

Yakima Forecast Results

YKM enplanements are projected to nearly double, from 57 thousand to 107 thousand (2.5% per year), and commercial passenger operations are projected to grow from about 4,300 to 5,800 (1.2% per year), between 2005 and 2030

Despite Yakima's service losses over the years, the pending addition of Delta Connection service is a vote of confidence in Yakima that reinforces the likelihood of future long-term traffic and operations growth.

Furthermore, real income is expected to grow at about 2.4 percent per year in Yakima County between 2005 and 2030, providing an important driver of air travel demand and service growth.

This forecast projects moderate growth of traffic and service over the 25 year forecast period. With the introduction of the new Delta Connection regional jets service, enplanements are expected to grow quite rapidly at first, from 56,000 in 2005 to more than 83,000 in 2008⁵³, but will grow more slowly thereafter, reaching 107,000 by 2030⁵⁴ – an 85 percent increase over 2005 passenger traffic and 11 percent higher than YKM's historic peak of 96,000 enplanements, recorded in 1991. On average, enplanements are forecast to grow at an average annual rate of 2.5 percent between 2005 and 2030.

Commercial operations are forecast to grow 36 percent overall (1.2 percent per year) from about 4,300 in 2005 to 5,800 by 2030. This forecast remains somewhat more conservative than Yakima's earlier Master Plan forecast of 128,000 enplanements by 2022.⁵⁵

⁵³ Base on estimated seat departures at an average 70% load factor.

⁵⁴ Projected enplanement growth from 2008 to 2030 is based on the estimated historic average annual growth at YKM between 1976 and 20008.

⁵⁵Sources: Yakima Air Terminal Master Plan Update, 2003.

Figure 72: Yakima Forecast Details⁵⁶

Year	Enplanements			Passenger Aircraft Operations		
	Commuter/ Air			Commuter/ Air		
	Air Carrier	Taxi	Total	Air Carrier	Taxi	Total
1976	50,198	7,659	57,857			
1980	40,718	26,281	66,999			
1985		62,152	62,152			
1990	39,022	30,613	69,635			
1995	4,301	80,813	85,114			
2000	946	85,239	86,185			
2005	1,299	56,184	57,483	34	4,271	4,305
2006E	1,030	54,476	55,506	33	4,129	4,161
2010	1,300	83,800	85,100	30	5,800	5,800
2015	1,600	88,400	90,100	40	5,700	5,700
2020	2,100	93,200	95,300	50	5,700	5,800
2025	2,800	98,100	100,900	60	5,700	5,800
2030	3,600	103,200	106,800	80	5,800	5,800

Figure 73: Yakima Historic and Projected Average Annual Growth Rates

Year	Enplanements			Passenger Aircraft Operations		
	Commuter/ Air			Commuter/ Air		
	Air Carrier	Taxi	Total	Air Carrier	Taxi	Total
Historic: 1976-2005	-11.8%	7.1%	0.0%	--	--	--
Forecast: 2005-2030	4.2%	2.5%	2.5%	3.5%	1.2%	1.2%

Boeing Field/King County International (BFI)

At present, Boeing Field's only scheduled service is offered by Kenmore Air, using aircraft with fewer than 10 seats

Seattle Boeing Field handled approximately 49,000 passenger boardings in 2006, including an estimated 29,000 enplanements on commuter/air taxi aircraft, and roughly 20,000 on larger air carrier aircraft, primarily in charter service.⁵⁷

At present, only Kenmore Air provides scheduled passenger service at BFI, linking the airport with Port Angeles and the San Juan Islands with 192 weekly aircraft departures as of April 2007, using 9-seat Cessna Caravan turboprops or similar aircraft⁵⁸.

⁵⁶ Enplanement data provided by Yakima Airport. Operations for 2003-2006 estimated, based on average passengers-per-departure statistics from the US DOT T100 database. Breakdowns by type of activity for prior years not available. Source for forecast: SH&E.

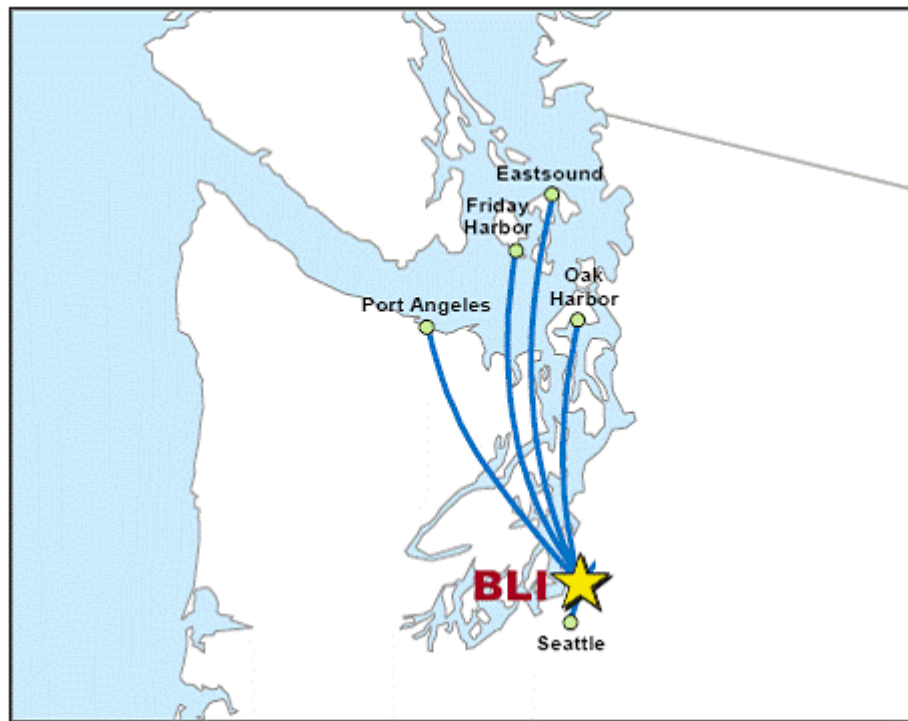
⁵⁷ Source: Boeing Field, US DOT T100.

⁵⁸ Source: Official Airline Guide.

*BFI also hosts charter
services with full-size
passenger jets*

Although BFI handles frequent full size jet freighter service from a number of cargo airlines, passenger service at the airport has been a relatively marginal activity in comparison. Since 1990, scheduled passenger operations have been provided primarily by independent operators based in the Seattle area, Puget Sound region or southern British Columbia, generally using aircraft with less than 10-seat capacity. A series of independent carriers provided scheduled passenger service at BFI beginning in the early 1990's, but all eventually abandoned the market due to financial difficulties, mergers or acquisitions, or liquidation.

Facing little competition, Kenmore Air began service at BFI in 2005, and rapidly increased its operations there to the point that it now offers an average of 27 daily departures, as of April 2007⁵⁹. The airport has also accommodated an estimated 300 charter aircraft departures each year – roughly 5 per week -- using full-size passenger jets.



*This forecast does not
assume any major policy
changes that would enable
regularly scheduled
passenger jet service at
Boeing Field*

With significant service changes from year to year, passenger traffic has fluctuated a great deal over time at BFI, but has nonetheless grown rapidly overall since 2004 with the entry of Kenmore Air⁶⁰. Commuter passenger enplanements are estimated to have nearly tripled since 2003.

⁵⁹ Sources: Official Airline Guide.

⁶⁰ Source: Boeing Field, FAA Terminal Area Forecasts, US DOT T100.

Boeing Field Forecast Results

BFI enplanements are forecast to grow from 45 thousand to 76 thousand (2.0% per year), and commercial passenger operations are forecast to grow from 5,800 to 13,900 (3.5% per year) between 2005 and 2030

This forecast for BFI does not assume any major changes in policy that would permit Boeing Field to accommodate frequent scheduled passenger service utilizing full-size jets. It is clear that airlines are quite interested in BFI as an alternative to Sea-Tac, and in 2005 both Alaska Airlines and Southwest applied to start scheduled service at the facility, although these plans were rejected by the King County government.

In the future, it is possible that BFI could begin accommodating significant passenger air service, positioning the airport as an alternative to Sea-Tac and a potential congestion reliever. Nonetheless, the possibility that this will occur remains only speculative. For this reason, the forecast for BFI assumes that it will accommodate only passenger aircraft with fewer than 10 seats on scheduled service, and only a limited number of charter operations with full size aircraft.

The vast majority of BFI enplanements and operations will be on commuter/air taxi aircraft

This forecasts projects steady but moderate growth of traffic and activity at BFI. By 2030, we project that commercial enplanements will increase 63 percent from an estimated 45,000 in 2005 to 76,000 by 2030, for an average annual growth rate of 2.1 percent. Commuter/air taxi enplanements will more than double, from 25,000 to 56,000 by 2030, for an average annual growth rate of 3.3 percent per year. However, charter air carrier traffic is assumed to remain relatively constant at roughly 20,000 enplanements per year, with little or no growth over the forecast period.

Commuter share of total enplanements is projected to increase from 57 percent in 2005 to 74 percent in 2030.

Commercial aircraft operations are projected to increase 141 percent (3.6 percent per year) between 2005 and 2030, growing from about 5,800 operations to 13,900.⁶¹ Commuter/air taxi operations are projected to increase at 3.7 percent per year between 2005 and 2030. Charter aircraft operations are expected to remain a relatively minor part of activity at BFI, with about 300 aircraft departures per year, accounting for 2 percent-3 percent of total commercial passenger aircraft operations at BFI over the forecast period.

⁶¹ The forecast assumes continued use of 9-seat Cessna Caravans or the equivalent as the most common commercial passenger aircraft at BFI in the near future, carrying an average of about 6 passengers per operation at first. In the future, SH&E assumes that both aircraft size and load factor will increase, resulting in operations growth that is slower than enplanement growth (note: commuter/air taxi enplanements are projected to grow at 2.7% per year from 2006 to 2030. In comparison, commuter/air taxi operations are projected to grow at an average annual rate of 1.6% per year).

Figure 74: Boeing Field Forecast Details⁶²

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
2000	20,000	10,582	30,582	300		
2001	20,000	10,555	30,555	300		
2002	20,000	10,069	30,069	300		
2003	20,000	11,053	31,053	300	2,730	3,030
2004	20,000	24,302	44,302	300	6,916	7,216
2005	20,000	25,117	45,117	300	5,466	5,766
2006E	20,000	32,447	52,447	300	9,370	9,670
2010	20,000	33,600	53,600	300	10,000	10,300
2015	20,000	38,800	58,800	300	10,800	11,100
2020	20,000	45,000	65,000	300	11,900	12,200
2025	20,000	50,900	70,900	300	12,900	13,200
2030	20,000	56,300	76,300	300	13,600	13,900

Figure 75: Boeing Field Historic and Projected Average Annual Growth Rates

Year	Enplanements				Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total		Air Carrier	Commuter/ Air Taxi	Total
Historic:							
2003-2005	0.0%	18.9%	8.1%		0.0%	--	--
Forecast:							
2005-2030	0.0%	3.3%	2.1%	#	0.0%	3.7%	3.6%

Wenatchee/Pangborn (EAT)

Wenatchee had approximately 40,000 passenger boardings in 2006. As with other small commercial service airports in Washington State, Wenatchee also receives scheduled service from only one carrier, Horizon, which currently offers 28 weekly departures to Sea-Tac using Dash-8 turboprops. The last competing airline, United Express (Colgan) ceased service to Wenatchee after 1997⁶³.

*Wenatchee is served by
only one scheduled
carrier at present*

⁶²Historic commuter/air taxi enplanement data for the years 2000 – 2002 from FAA Terminal Area Forecasts; for the years 2003, 2004 and 2006 from US DOT T100; for the year 2005 from Boeing Field. 2000-2006 historic air carrier enplanements based on Boeing Field estimate for charter activity. Historic 2000-2006 historic air carrier operations based on SH&E estimate of average passengers per departure, for charter flights. Historic commuter/air taxi operations for 2003-2006 from US DOT T100.

⁶³ Source: Official Airline Guide.



EAT has had a relatively consistent record of traffic increases over the long term, but suffered severe service cutbacks and a 31% loss in passenger traffic between 1997 and 2005

Although passenger boardings at EAT have declined since the mid 1990's as air service has been reduced, EAT has maintained a relatively consistent record of traffic increases over the longer term. Between 1976 and 1997, passenger enplanements at EAT grew from 10,000 to 55,000, for an average annual growth rate of 8.4 percent. However, in the following 8 years, enplanements declined 31 percent to 38,000 by 2005. In spite of this decline, EAT has nonetheless maintained a reasonably strong overall average enplanement growth rate of 4.7 percent between 1976 and 2005. Growth has recently resumed, with passenger boardings increasing 3.5 percent between 2005 and the year ending October 2006.

Wenatchee enplanements are projected to grow from 38 thousand to 93 thousand (3.6% per year), and operations are projected to grow from 15 thousand to 18 thousand (0.7% per year) between 2005 and 2030

The service declines over the last decade cannot be ignored, however. Between 1991 and 2006, scheduled aircraft departures at EAT declined 84 percent, from 178 to 28. United Express left in 1998, and Horizon reduced its weekly departures from 156 in 1993 to 73 by 1998 and 28 by April 2007. Horizon's frequency reductions at EAT prior to 1998 were partially mitigated by the carrier's replacement of its 19-seat Metros with larger Dornier 328 and Dash-8 turboprops. However, this transition was substantially completed by 1994. Subsequent Horizon frequency reductions have not been accompanied by increases in aircraft size, and therefore represent a pure loss in passenger-carrying capacity⁶⁴.

Wenatchee Forecast Results

SH&E has projected that Wenatchee traffic will continue to grow over the long term. In light of Wenatchee's long-term historic growth trend, this

⁶⁴ Source: Official Airline Guide.

forecast projects that Wenatchee traffic will continue to grow over the long term. Passenger enplanements are predicted to grow 141 percent (3.6 percent per year) from 38,000 in 2005 to 93,000 by 2030. This forecast growth rate is somewhat slower than EAT's historic 4.7 percent annual growth in passengers recorded between 1976 and 2005.

Total commercial passenger aircraft operations are forecast to grow 19 percent (0.7 percent per year), from about 15,000 in 2005 to 18,000 by 2030. While commuter activity is forecast to increase at 2.9 percent per year, air taxi services – which currently account for the majority of commercial passenger aircraft activity at EAT -- are projected to remain constant for the duration of the 2005 – 2030 forecast period⁶⁵.

In spite of EAT's long-term historic growth trend and potential for future growth, Wenatchee may have a some risk for service loss in the future.

- Traffic and operations have already declined substantially since the mid-1990's.
- For nearly a decade, EAT has been dependent on a single carrier, Horizon, for all of its scheduled air service.
- Horizon serves only one major destination from EAT: Sea-Tac.
- Horizon offers 4 daily frequencies at present. If Horizon retires the Dash-8's that it uses at Wenatchee, it is not certain that the airline could economically sustain current frequency levels with larger replacement aircraft.
- If frequencies are further reduced, unit operating costs per passenger or per operation will likely increase – providing an additional impetus to remove services altogether.

⁶⁵ Source: Official Airline Guide.

Figure 76: Wenatchee Forecast Details⁶⁶

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
1976		10,184	10,184				4,004
1980		14,000	14,000				2,500
1985		15,000	15,000				4,000
1990		34,000	34,000				7,000
1995		47,014	47,014				16,000
2000		49,930	49,930				17,316
2005		38,434	38,434		2,718	12,300	15,018
2006E		39,800	39,800		2,700	12,300	15,000
2010		48,600	48,600		3,200	12,300	15,500
2015		59,600	59,600		3,800	12,300	16,100
2020		70,500	70,500		4,400	12,300	16,700
2025		81,500	81,500		5,000	12,300	17,300
2030		92,500	92,500		5,600	12,300	17,900

Figure 77: Wenatchee Historic and Projected Average Annual Growth Rates

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
Historic: 1976-2005	--	4.7%	4.7%	--	--	--	4.7%
Forecast: 2005-2030	--	3.6%	3.6%	--	2.9%	0.0%	0.7%

Walla Walla (ALW)

Horizon holds an
85% share of
scheduled seats at
Walla Walla

Walla Walla had an estimated 28,000 passenger boardings in 2006. At present, Horizon is the only major carrier at ALW, offering 20 weekly Dash-8 departures to Sea-Tac. Horizon currently has a dominant position in the market, with 74 percent of ALW scheduled frequencies and 85 percent of scheduled seats. Big Sky entered the Walla Walla market in 2006 and currently provides 7 weekly flights to Boise, ID using 19 passenger Beech 1900D turboprops.⁶⁷ Big Sky's service is subsidized under the US Department of Transportation Small Community Air Service Development Program.

⁶⁶Historic enplanement and commuter operations data for 1976-2002 is from FAA Terminal Area Forecasts. 2003-2006 enplanements and operations data are from US DOT T100. Breakdowns by type of activity for prior years not available. Historic traffic and activity data validated against operating statistics provided by EAT for 2005. Historic passenger air taxi operations statistics provided by EAT.

⁶⁷ Source: Official Airline Guide.



Figure 78: Walla Walla Share of Scheduled Frequencies and Seats by Carrier
April 2007⁶⁸

Airline	Share of Frequencies	Share of Seats
Horizon	74.1%	84.8%
Big Sky	25.9%	15.2%
Total	100.0%	100.0%

Walla Walla has had a relatively consistent trend of traffic growth over the long term

Unlike other small communities in Washington State, Walla Walla has a relatively consistent trend of traffic growth over the long term, with passenger enplanements growing on average at 1.9 percent per year between 1976 and 2005. Nonetheless, ALW like other communities has experienced traffic declines in recent years, although the magnitude of the loss was relatively minor. From a peak of about 31,000 enplanements in 2000, passenger traffic declined about 10 percent to an estimated 28,000 enplanements by 2006.

Air service trends at ALW have much in common with other Washington State small community airports, however. From a peak of 125 weekly departures in 1993, service frequency has declined to only 27 weekly departures. Horizon has been the dominant – or only – scheduled carrier serving ALW, with only sporadic activity by competing carriers over the past 20 years.

⁶⁸ Source: Official Airline Guide.

Horizon completed its transition from Metro's to Dash 8's in 1997 at ALW, but has maintained relatively constant service frequency since then.

Walla Walla Forecast Results

Walla Walla enplanements are forecast to grow from about 25 thousand to 49 thousand (2.7% per year), and commercial passenger aircraft operations are forecast to grow from 3,000 to 4,000 (1.2% per year), between 2005 and 2030

In light of ALW's relatively consistent historic traffic growth and forecasts of moderate real income growth in its service area, this forecast projects that there will be growth in passenger traffic and operations at Walla Walla. Between 2005 and 2030, enplanements are forecast to grow 97 percent from 25,000 to 49,000 (2.7 percent per year), and commercial passenger aircraft operations are projected to grow 34 percent from 3,000 to 4,000 (1.1 percent per year).

Walla Walla may also be at risk for service loss, despite its history of growth and forecast of future growth. Walla Walla's major vulnerability is its proximity to the Tri-Cities/Pasco airport, only 52 miles and about a 1 hour drive away. As of April 2007, Tri-Cities/Pasco has nearly 5 times the service frequency of Walla Walla, and could easily draw passengers from ALW's service area should service at ALW be reduced or eliminated.

Walla Walla may be at risk for service loss in the future

Furthermore, ALW shares a number of important risk factors with other small airports in Washington State that are vulnerable to service reductions:

- Dependence on a single carrier, Horizon, for the vast majority of its scheduled air service
- Relatively infrequent service to a limited number of destinations
- Service provided by Horizon Dash-8's, which may be replaced in Horizon's fleet by larger turboprops or regional jets that may not be able to serve the Walla Walla market economically.
- Prior reductions in service and capacity

Figure 79: Walla Walla Forecast Details⁶⁹

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
1976		14,487	14,487				7,011
1980		10,500	10,500				11,378
1985		20,808	20,808				5,677
1990		18,606	18,606				7,488
1995		22,461	22,461				5,232
2000		31,478	31,478				3,417
2005		24,700	24,700		1,996	985	2,981
2006E		28,300	28,300		2,500	700	3,200
2010		31,800	31,800		2,600	700	3,300
2015		36,000	36,000		2,800	700	3,500
2020		40,200	40,200		3,000	700	3,600
2025		44,400	44,400		3,100	700	3,800
2030		48,600	48,600		3,300	700	4,000

Figure 80: Walla Walla Historic and Projected Average Annual Growth Rates

Year	Enplanements			Passenger Aircraft Operations			
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter	Air Taxi	Total
Historic: 1976-2005	--	1.9%	1.9%	--	--	--	-2.9%
Forecast: 2005-2030	--	2.7%	2.7%	--	2.0%	0.0%	1.1%

Pullman/Moscow (PUW)

Horizon is the only airline offering scheduled service to Pullman/Moscow

Pullman/Moscow had an estimated 24,000 enplanements in 2006. In common with other smaller commercial service airports in Washington State, PUW is served on a scheduled basis by a single carrier, Horizon, operating Dash-8 turboprops. Horizon offers service to two destinations: Sea-Tac and Lewiston, Idaho. A total of 28 weekly frequencies are offered, with 14 nonstops to Seattle, and 14 one-stops to Seattle via Lewiston.⁷⁰

⁶⁹Historic enplanement data from Walla Walla. Historic commuter operations data for 1976-2002 is from FAA Terminal Area Forecasts and from DOT T100 for the years 2003-2006. Breakdowns by type of activity for prior years not available.

⁷⁰Source: Official Airline Guide.



Pullman/Moscow enplanements fell 37% between 1996 and 2006

A study commissioned by Pullman-Moscow regional airport estimates that 74% of its local service area traffic "leaks" to other airports, principally Spokane

As with other smaller Washington State commercial service airports, Pullman/Moscow has lost a great deal of scheduled service since the early 1990's. In 1990, PUW accommodated 228 scheduled departures per week, with service by Horizon as well as United Express. Since then, scheduled frequencies have declined nearly 85 percent to only 35 departures per week, as of February 2007. Although 19 seat turboprops have been replaced with larger aircraft during this time, total scheduled seats in April 2007 were 64 percent lower than in April 1996⁷¹.

Passenger traffic at Pullman/Moscow has also fallen, with enplanements dropping 37 percent from a peak of 38,000 in 1996 to 24,000 in 2006. Nevertheless, over the long term, since 1976, enplanements have grown overall, at an average annual rate of 1.8 percent⁷².

PUW is at a disadvantage in terms of location, as it is situated only 78 miles from Spokane, less than a 2 hour drive away. It is also less than an hour's drive from the commercial airport at Lewiston, ID. A study previously commissioned by the airport estimated that 74 percent of traffic in PUW's service area is lost to other airports, principally Spokane.

Pullman/Moscow enplanements are projected to grow from 23 thousand to 39 thousand (2.0% per year), and commercial passenger aircraft operations are projected to increase from 3,600 to 3,900 (0.3% per year) between 2005 and 2030

Pullman/Moscow Forecast Results

SH&E projects relatively low enplanement growth for Pullman/Moscow, at averaging 2.0 percent per year from 2005 to 2030. This is only slightly

⁷¹ Source: Official Airline Guide.

⁷² Source: Pullman/Moscow Airport.

faster than the 1.8 percent average annual passenger traffic growth that the airport recorded between 1976 and 2005. At this rate of growth, enplanements will increase 64 percent from the current 23,000 to about 38,000 by 2030, the same level as PUW's historic peak passenger traffic, recorded in 1996.

Commercial aircraft operations are expected to grow only slightly over the forecast period, constrained by increasing load factors and growth in aircraft capacity. Between 2005 and 2030, operations are projected to grow about 10 percent from 3,600 to 3,900, averaging only a 0.3 percent increase in frequencies per year.

Pullman/Moscow is at risk for service loss for the following reasons:

*Pullman/Moscow remains
at risk for service loss*

- Traffic and operations have already declined significantly since the mid-1990's.
- Since 1990, the airport has been dependent upon a single carrier, Horizon, for all of its scheduled air service.
- Horizon serves only a single major destination from PUW: Sea-Tac (with Lewiston, ID sometimes served as an intermediate point).
- If Horizon retires the Dash-8's that it uses exclusively on services to PUW, it is not certain that the airline could economically sustain current frequency levels at with larger replacement aircraft.
- If frequencies are further reduced, unit operating costs per passenger or per operation will likely increase – providing an additional impetus to remove services altogether.
- PUW already has high levels of traffic leakage to other airports, Spokane in particular.

Figure 81: Pullman/Moscow Forecast Details⁷³

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1976		13,691	13,691			
1980		21,373	21,373			
1985		19,918	19,918			
1990		36,348	36,348			
1995		36,622	36,622		11,250	11,250
2000		33,196	33,196		3,264	3,264
2005		23,059	23,059		3,552	3,552
2006		23,700	23,700		3,300	3,300
2010		26,200	26,200		3,300	3,300
2015		29,100	29,100		3,500	3,500
2020		32,000	32,000		3,600	3,600
2025		34,900	34,900		3,700	3,700
2030		37,800	37,800		3,900	3,900

Figure 82: Pullman/Moscow Historic and Projected Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1976-2005	--	1.8%	1.8%	--	--	--
Historic:						
1995-2005	--	-4.5%	-4.5%	--	-10.9%	-10.9%
Forecast:						
2005-2030	--	2.0%	2.0%	--	0.4%	0.4%

Port Angeles/Wm. R. Fairchild (CLM)

Port Angeles accommodated an estimated 16,000 passenger boardings in 2006.

Scheduled passenger service at Port Angeles is provided exclusively by Kenmore Air, using aircraft with fewer than 10 seats

Scheduled service at Port Angeles is now provided exclusively by Kenmore Air, with 42 weekly departures to Boeing Field as of April 2007. The service employs 9 seat Cessna Caravan turboprops or similar aircraft⁷⁴. Horizon served the market from 1988 to 2003, but withdrew completely in 2004. In its last year of service, Horizon offered 28 Dash 8 departures per week, down from 194 weekly departures in 1991. Other carriers, primarily independents, have offered scheduled services at CLM over the years, but only sporadically.

⁷³ All historic passenger traffic and operations data provided by Pullman/Moscow.

⁷⁴ Source: Official Airline Guide.



In common with other Washington airports, Port Angeles has suffered considerable service and traffic reductions since 1990

Although Kenmore Air offers significantly higher service frequency than Horizon did prior to its withdrawal, with 42 weekly departures compared to Horizon's 28, Kenmore's smaller aircraft provide fewer than half of the scheduled seats that had been offered by Horizon⁷⁵.

Real income in Clallam County is projected to grow rapidly

The service reductions at Port Angeles have coincided with a considerable drop in traffic. From a peak of 70,000 enplanements in 1989, passenger boardings have fallen to about 16,000 in 2006. Long-term historic growth at CLM between 1976 and 2005 averaged 1.6 percent per year⁷⁶.

Port Angeles Forecast Results

CLM enplanements are forecast to grow from 19 thousand in 2005 to 27 thousand by 2030 (1.4% per year), and operations are projected to remain more or less flat at 6,200 – 6,400 between 2005 and 2030

A forecast of some future traffic and service growth at Port Angeles is warranted in light of the surrounding region's economic growth. Between 1976 and 2005, real income in Clallam County grew at an average annual rate of 3.2 percent. Real income is projected to continue growing at 3.0 percent per year through 2030.

Nonetheless, taking into consideration the considerable service and traffic losses at Port Angeles since 1990, a forecast of only moderate growth is warranted.

⁷⁵ Source: Official Airline Guide.

⁷⁶ Sources: FAA Terminal Area Forecasts, US DOT T100.

This forecast projects that passenger enplanements at Port Angeles will grow 41 percent (1.4 percent per year) between 2005 and 2030, slightly less than the airport's historic 1976-2005 enplanement growth rate. By 2030, enplanements are predicted to increase to 27,000, equal to the average number of enplanements recorded at Port Angeles between 1991 and 2006, and well below the peak of 70,000 enplanements recorded in 1990.

Commercial aircraft operations are expected to remain at more or less the 2005 level by 2030. Services are expected to be provided by smaller independent carriers such as Kenmore Air, using small piston or turboprop aircraft.

Figure 83: Port Angeles Forecast Details⁷⁷

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1976		12,000	12,000			
1980		23,000	23,000			
1985		24,000	24,000			
1990		17,630	17,630			
1995		35,421	35,421			
2000		26,982	26,982			
2005		18,932	18,932		6,408	6,408
2006E		16,000	16,000		4,900	4,900
2010		17,800	17,800		5,100	5,100
2015		20,000	20,000		5,400	5,400
2020		22,300	22,300		5,700	5,700
2025		24,500	24,500		5,900	5,900
2030		26,700	26,700		6,200	6,200

Figure 84: Port Angeles Historic and Projected Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1976-2005	--	1.6%	1.6%	--	--	--
Forecast:						
2005-2030	--	1.4%	1.4%	--	-0.1%	-0.1%

⁷⁷Historic enplanement and operations data from FAA Terminal Area Forecasts and US DOT T100 Breakdowns by type of activity for prior years not available..

Eastsound/Orcas Island (ESD)

Eastsound/Orcas Island handled an estimated 4,800 passenger enplanements in 2006.

No single carrier has a majority share of operations at Eastsound/Orcas Island

Commercial passenger service at Eastsound/Orcas Island, in the San Juan Islands chain, is provided by a number of scheduled and unscheduled air taxi services, operating a mix of small piston and turboprop aircraft. No single carrier has a majority share of traffic or operations at ORS. In 2006, San Juan Airlines held the highest share of frequencies at 26.3 percent, while Kenmore Air captured the highest share of passenger traffic, at 28.0 percent⁷⁸

Figure 85: Eastsound/Orcas Island Share of Aircraft Frequencies and Enplanements by Carrier
CY 2006⁷⁹

Airline	Share of Frequencies	Share of Enplanements
San Juan Airlines	26.3%	23.0%
Island Air	21.1%	12.0%
Kenmore Air	14.8%	28.0%
Magic Air	10.6%	14.0%
Bellingham Air Taxi	5.9%	9.0%
Rugby Aviation	1.4%	15.0%
Total	100.0%	100.0%

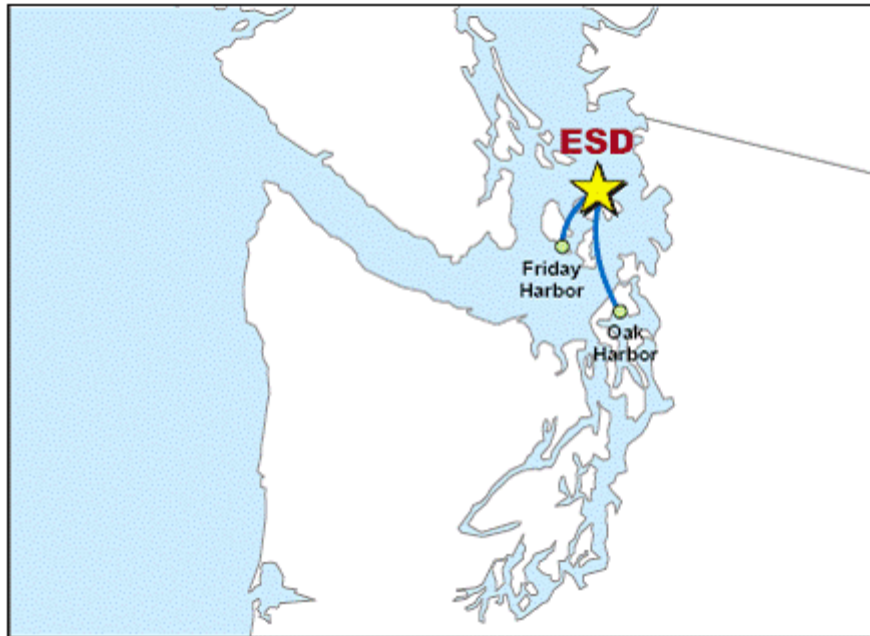
Although capacity and traffic have fallen since the late 1990's, Eastsound/Orcas Island has successfully attracted a number of new operators in recent years

Passenger traffic at Eastsound/Orcas Island declined 42 percent from 8,300 in 1998 to 4,800 in 2006, as a number of small carriers that had served the airport ceased operating. However, in spite of this service decline, there have been a number of positive service developments at Eastsound/Orcas Island in recent years. Kenmore Air entered the market in 2005 and enplaned 1,200 passengers in 2006, with an average of 9 aircraft departures per week. Bellingham Air Taxi also entered in 2005. Rugby began serving ORS in 2003, and enplaned 700 passengers in 2006. Island Air, which has operated to ORS since 1999, enplaned more than 500 passengers in 2006, with an average of 13 weekly aircraft departures⁸⁰.

⁷⁸ Source: Eastsound/Orcas Island

⁷⁹ Source: Eastsound/Orcas Island.

⁸⁰ Source: Eastsound/Orcas Island



Eastsound/Orcas Island Forecast Results

Eastsound/Orcas Island enplanements are forecast to grow from 4,500 to 6,900 (1.7% per year), and operations are projected to grow only slightly, from 5,500 to 5,600 (0.1% per year) between 2005 and 2030

The San Juan Islands have some of the highest economic growth rates in Washington State, with real income growing 5.8 percent per year on average between 1976 and 2005. Real income is projected to increase at 4.1 percent annually between 2005 and 2030.⁸¹

In light of this growth and the thriving tourism industry on the islands, prior service declines at ESD most likely had more to do with issues facing the carriers serving the airport, rather than any fundamental issues of market demand.

This forecast projects that passenger enplanements will grow 53 percent (1.7 percent per year) from 4,500 in 2005 to 6,900 by 2030. Forecast passenger boardings for 2030 are equivalent to the average annual passenger boardings at ESD between 1998 and 2006, but remain below ESD's peak traffic level of 9,200 enplanements in 1999.

Operations are projected to grow only slightly, from 5,500 in 2005 to 5,600 by 2030, for an average annual growth rate of 0.1 percent.

⁸¹ Source: NPA Data Services, Inc.

Figure 86: Eastsound/Orcas Island Forecast Details⁸²

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1998		8,280	8,280		11,654	11,654
1999		9,137	9,137		13,292	13,292
2000		8,663	8,663		13,460	13,460
2001		6,439	6,439		12,120	12,120
2002		5,008	5,008		6,756	6,756
2003		6,408	6,408		8,916	8,916
2004		6,495	6,495		7,372	7,372
2005		4,490	4,490		5,466	5,466
2006E		4,800	4,800		5,300	5,300
2010		5,200	5,200		5,300	5,300
2015		5,600	5,600		5,300	5,300
2020		6,000	6,000		5,400	5,400
2025		6,400	6,400		5,500	5,500
2030		6,900	6,900		5,600	5,600

Figure 87: Eastsound/Orcas Island Historic and Projected Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1998-2005	--	-8.4%	-8.4%	--	-10.3%	-10.3%
Forecast:						
2005-2030	--	1.7%	1.7%	--	0.1%	0.1%

Anacortes (OTS)

Anacortes passenger service is provided by a single scheduled operator, San Juan Airlines

Commercial service at Anacortes is currently provided by a single carrier, San Juan Airlines, operating Piper Chieftains and Cessna Stationairs. The carrier provides service to the San Juan Islands, and serves points in British Columbia as well. The airline's current schedule shows the carrier offering about 35 departures per week, or 5 departures per day.

Anacortes is estimated to have had fewer than 2,000 enplanements in 2006⁸³.

From 1992 through 2003, Anacortes' primary scheduled operator was West Isle Air, which offered high frequency service to the San Juan Islands. The carrier offered more than 100 weekly departures in the mid-1990's, declining to 68 by 2003. West Isle has subsequently merged with

⁸²Historic enplanement and operations data from Eastsound/Orcas Island

⁸³Source: Anacortes Airport.

or been acquired by San Juan Airlines, which continues to serve Anacortes, but with reduced frequency.



Passenger boardings declined 83% between 1998 and 2006. OTS enplaned fewer than 2,000 passengers in 2006

There has been only a sporadic presence by other carriers at Anacortes over the last 20 years.

Since the late 1990's, passenger boardings at Anacortes have declined by 83 percent, from 9,800 in 1998 to 1,700 in 2006⁸⁴.

Anacortes Forecast Results

In spite of the declines in service and traffic at Anacortes since the late 1990's, it is important to note that Anacortes serves a region characterized by rapid economic growth. Between 1976 and 2005, total real income in Skagit and San Juan counties increased at an average annual rate of 4.3 percent. Real income is projected to increase at 3.3 percent per year between 2005 and 2030.

Anacortes enplanements are projected to grow from 1,600 to 5,700 (5.1% per year), and operations are projected to grow from 1,200 to 3,200 (4.1% per year), between 2005 and 2030

This forecast takes into consideration both high economic growth in the region as well as Anacortes' history of service losses. Enplanements are projected to increase from 1,700 in 2006 to about 5,700 by 2030, or 250 percent (5.1 percent per year). Projected 2030 enplanements nonetheless remain well below historic peak traffic levels at Anacortes – 11,330 enplanements in 1999.

⁸⁴ Source: Anacortes Airport.

Commercial passenger aircraft operations at Anacortes are projected to grow 182 percent (4.1 percent per year) from 1,250 in 2006 to 3,207 in 2030.

Figure 88: Anacortes Forecast Details⁸⁵

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
1998		9,756	9,756		12,186	12,186
1999		11,330	11,330		10,250	10,250
2000		10,207	10,207		13,390	13,390
2001		8,120	8,120		11,050	11,050
2002		2,654	2,654		4,416	4,416
2003		2,448	2,448		3,808	3,808
2004		3,447	3,447		2,194	2,194
2005		1,626	1,626		1,136	1,136
2006E		1,700	1,700		1,300	1,300
2010		2,400	2,400		1,600	1,600
2015		3,200	3,200		2,100	2,100
2020		4,000	4,000		2,500	2,500
2025		4,900	4,900		2,900	2,900
2030		5,700	5,700		3,200	3,200

Figure 89: Anacortes Historic and Projected Average Annual Growth Rates

	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
Historic:						
1998-2005	--	-22.6%	-22.6%	--	-28.7%	-28.7%
Forecast:						
2005-2030	--	5.1%	5.1%	--	4.2%	4.2%

Kenmore Air Harbor, Inc (KEH, S60)

Flight activity at Kenmore Air Harbor Inc is characterized by high seasonality, and a large number of repositioning flights by Kenmore Air to Seattle Lake Union SPB

Kenmore Air Harbor, Inc seaplane base, located north of Seattle in Kenmore, WA at the northern end of Lake Washington, is the base for Kenmore Air, one of the largest seaplane operators in the world. Kenmore Air is the primary user of the seaplane base, although a number of different air taxi operators use the facility occasionally. There are also some non-scheduled flights in and out of the seaplane base for purposes of flight training, as well as ferrying aircraft to and from Kenmore Air's maintenance facility. Kenmore Air accounts for nearly all commercial operations at Kenmore Air Harbor, Inc.

⁸⁵Historic enplanement and operations data from Anacortes..

Service at Kenmore Air Harbor, Inc is characterized by high seasonality, with up to 40 daily aircraft departures in the months of July and August, but only about 6 per day in January and February.

It is important to note that there are many “deadhead” or repositioning operations at Kenmore Air Harbor, Inc much of them between Kenmore Air Harbor, Inc and Kenmore Harbor SPB. The airline has estimated the repositioning activity at about 50 percent of total commercial operations at Kenmore Air Harbor.



August 2006.

Kenmore Air Harbor, Inc Forecast Results

With planned new seaplane service to Vancouver, enplanements are expected to increase from about 10 thousand in 2006 to 16 thousand by 2030. Operations are projected to grow from 21 thousand in 2006 to 34 thousand by 2030 (2.0% per year)

Forecasts are based on projections by Kenmore Air. Currently, there are about 10,000 scheduled enplanements per year at Kenmore Air Harbor, Inc and an estimated 21,000 annual commuter operations.⁸⁶

The carrier projects that scheduled activity will increase rapidly over the next several years, with introduction of scheduled seaplane service between Kenmore Harbor SPB on Lake Union and downtown Vancouver. Many or most of these services will commence or terminate at Kenmore Air Harbor. Within the next 5 years, operations at Kenmore Harbor SPB on Lake Union and, by extension, Kenmore Air Harbor, Inc are expected to increase by approximately 40 percent. By 2030, operations are projected to grow an additional 15 percent at both airports.

⁸⁶ Source: Kenmore Air Harbor, Inc. (S60).

Between 2005 and 2030, growth in both enplanements and commercial operations at both Kenmore Harbor SPB on Lake Union and Kenmore Air Harbor, Inc is projected to be 61 percent (2.0 percent per year). At Kenmore Air Harbor, Inc these growth rates imply that enplanements will increase from 10,000 in 2006 to 16,100 by 2030. Commercial seaplane operations are projected to grow from about 21,000 in 2006 to 33,800 by 2030.

Figure 90: Kenmore Air Harbor, Inc Current and Projected Commercial Traffic and Activity
2006-2030⁸⁷

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
2006E		10,000	10,000		21,000	21,000
2010		13,200	13,200		27,700	27,700
2015		14,400	14,400		30,300	30,300
2020		15,000	15,000		31,500	31,500
2025		15,500	15,500		32,600	32,600
2030		16,100	16,100		33,800	33,800

Figure 91: Kenmore Air Harbor, Inc Forecast Average Annual Growth Rates in Commercial Traffic and Activity
2006-2030

Enplanements			Operations		
Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi (Psgr.)	Total
--	2.0%	2.0%	--	2.0%	2.0%

Kenmore Air Harbor SPB (LKE, S55)

*Nearly all operations at
Kenmore Air Harbor,
SPB are by Kenmore Air*

Kenmore Air Harbor, SPB accommodated an estimated 34,000 passenger enplanements in 2006. The airport, located near downtown Seattle, is used primarily by Kenmore Air for services to the San Juan Islands and British Columbia. Many or most of Kenmore Air's services from Lake Union begin or end at Kenmore Air Harbor, Inc, with a large proportion of these short sector operations essentially being "deadheads" or repositionings, although they are listed as scheduled operations in the Official Airline Guide.

⁸⁷ Source: Based on discussions with Kenmore Air.

Kenmore Air accounts for nearly all commercial operations at Kenmore Air Harbor, SPB. In common with the other airports that Kenmore Air serves, service at Kenmore Air Harbor, SPB is characterized by high seasonality, with as many as 50 daily aircraft departures in the summer, dwindling to about 6 during the winter months.



August 2006.

Kenmore Air Harbor SPB Forecast Results

Forecasts are based on projections by Kenmore Air. Currently, there are about 34,000 enplanements per year at Kenmore Air Harbor SPB, and an estimated 25,400 annual commuter operations.⁸⁸

The carrier projects that scheduled activity at Lake Union will increase rapidly over the next several years, with proposed introduction of scheduled seaplane service to downtown Vancouver. Within the next 5 years, operations at Lake Union are expected to increase by approximately 40 percent. Between 2011 and 2030, operations are projected to grow an additional 15 percent.

These growth estimates imply that between 2006 and 2030, both passenger enplanements and commercial operations at Kenmore Air Harbor, SPB will grow 61 percent (1.9 percent per year). These growth rates imply that enplanements will increase from 34,000 in 2006 to 54,700

⁸⁸ Source: Kenmore Seattle Air Harbor SPB (W55)

With the introduction of new service to Vancouver, enplanements are forecast to increase from 34 thousand to 55 thousand, and operations are projected to increase from 25 thousand to 41 thousand between 2005 and 2030

by 2030. Commercial seaplane operations are projected to grow from about 25,400 in 2006 to 40,900 by 2030.

Figure 92: Kenmore Air Harbor, SPB Current and Projected Commercial Traffic and Activity 2006-2030⁸⁹

Year	Enplanements			Passenger Aircraft Operations		
	Air Carrier	Commuter/ Air Taxi	Total	Air Carrier	Commuter/ Air Taxi	Total
2006E		34,000	34,000		25,400	25,400
2010		44,900	44,900		33,500	33,500
2015		49,100	49,100		36,700	36,700
2020		51,000	51,000		38,100	38,100
2025		52,900	52,900		39,500	39,500
2030		54,700	54,700		40,900	40,900

Figure 93: Kenmore Air Harbor, SPB Forecast Average Annual Growth Rates in Commercial Traffic and Activity 2006-2030

Air Carrier	Enplanements		Air Carrier	Passenger Aircraft Operations	
	Commuter/ Air Taxi	Total		Commuter/ Air Taxi	Total
--	2.0%	2.0%	--	2.0%	2.0%

Other Land Airports and Seaplane Bases in the San Juan Islands and Puget Sound

The San Juan Islands are among the fastest growing areas of Washington State

The San Juan Islands are among the fastest growing areas of Washington State, with real income growing 5.8 percent per year on average between 1976 and 2005. Real income is projected to increase at 4.1 percent annually between 2005 and 2030.⁹⁰ Much of the local economy is tourism-based, with commercial air service an essential component. Without commercial aircraft operations, access to the islands would be greatly hindered.

⁸⁹ Source: Based on discussions with Kenmore Air.

⁹⁰ Source: NPA Data Services, Inc.

The islands are home to both land airports and seaplane bases. Seaplane bases with commercial air service in the San Juan Islands include:

- Rosario SPB
- Roche Harbor SPB

Other land airports with commercial air service in the San Juan Islands/Puget Sound region include:

- Lopez Island
- Oak Harbor (Whidbey Island)

There are an estimated 5,000 commercial seaplane operations and 11,000 passenger enplanements per year, at present, at Rosario Seaplane Base. Roche Harbor SPB handled an estimated 4,000 scheduled enplanements and 2,300 commercial seaplane operations in 2005.⁹¹ Oak Harbor is estimated to handle about 13,500 annual enplanements and 5,000 commercial aircraft operations, at present. Lopez Island presently handles about 7,500 annual enplanements and 5,000 annual commercial aircraft operations.

Projections of future activity at these airports is based on discussions with Kenmore Air.

*Between 2005 and 2030,
passenger traffic and
commercial seaplane
activity is projected to
grow 15% (0.8% per year)
at both Rosario and Roche
Harbor seaplane bases*

Forecast Results – Seaplane Bases

The projection of future activity at these airports is based on discussions with Kenmore Air.

The carrier projects moderate but steady growth in the future at both Rosario and Roche Harbor, with 2030 traffic and operations at approximately 15 percent higher than in 2006. This implies average annual growth in enplanements and operations of approximately 0.8 percent.

⁹¹ Source: Roche Harbor SPB.

Figure 94: Rosario and Roche Harbor - Current and Projected Commercial Aircraft Enplanements and Operations
2006-2030⁹²

<i>Enplanements</i>			<i>Operations</i>		
Year	Rosario	Roche Harbor	Year	Rosario	Roche Harbor
2006E	11,000	4,000	2006E	5,000	2,300
2010	11,300	4,100	2010	5,200	2,400
2015	11,800	4,300	2015	5,400	2,500
2020	12,200	4,500	2020	5,600	2,600
2025	12,700	4,700	2025	5,800	2,700
2030	13,200	4,800	2030	6,000	2,800

Figure 95: Rosario and Roche Harbor - Forecast Average Annual Growth Rates in Commercial Enplanements and Operations
2006-2030⁹³

<i>Enplanements</i>		<i>Operations</i>	
Rosario	Roche Harbor	Rosario	Roche Harbor
0.8%	0.8%	0.8%	0.8%

Forecast Results – Land Airports

Between 2005 and 2030, enplanements and operations are projected to grow 30% (1.1% per year) at Oak Harbor and 15% (0.8% per year) at Lopez Island

The carrier projects moderate but steady growth in operations of about 0.8 percent per year at Lopez Island, between 2006 and 2030. This growth rate implies that 2030 passenger enplanements and operations will be about 15 percent higher than current levels at the facility.

Oak Harbor, located on Whidbey Island, is projected to grow somewhat faster, at approximately 1.1 percent per year. By 2030, passenger traffic and operations at Oak Harbor are projected to be about 30 percent higher than current levels.

⁹² Sources: SH&E estimates and forecasts, based on FAA Terminal Aviation Forecasts, T100, AirNav.com, discussions with Kenmore Air and other sources.

⁹³ Sources: SH&E estimates and forecasts, based on FAA Terminal Aviation Forecasts, T100, AirNav.com, discussions with Kenmore Air and other sources.

Figure 96: Oak Harbor and Lopez Island - Current and Projected Commercial Aircraft Enplanements and Operations
2006-2030⁹⁴

<i>Enplanements</i>			<i>Operations</i>		
Year	Oak Harbor	Lopez Island	Year	Oak Harbor	Lopez Island
2006E	13,500	7,500	2006E	5,000	5,000
2010	14,100	7,700	2010	5,200	5,200
2015	14,900	8,000	2015	5,500	5,400
2020	15,700	8,300	2020	5,800	5,600
2025	16,600	8,700	2025	6,200	5,800
2030	17,600	9,000	2030	6,500	6,000

Figure 97: Oak Harbor and Lopez Island - Forecast Average Annual Growth Rates in Commercial Enplanements and Operations
2006-2030⁹⁵

<i>Enplanements</i>		<i>Operations</i>	
Oak Harbor	Lopez Island	Oak Harbor	Lopez Island
1.1%	0.8%	1.1%	0.8%

Key Findings

Significant Growth Expected in Passenger Traffic

Future growth of passenger traffic in Washington State as a whole is expected to be significant, growing from 17,000 enplanements in 2005 to about 31,000 by 2030, for an average annual growth rate of 2.5 percent. The state's commercial operations are projected to increase at a healthy 2.1 percent per year, from 570,000 in 2005 to 960,000 by 2030.

Kenmore Air Harbor is one of the largest seaplane operators in the world providing commercial passenger service from Lake Union in Seattle and Lake Washington at Lake Washington to the San Jan Islands and Canada with over 44,000 scheduled passenger enplanements in 2005. Commercial

⁹⁴ Sources: SH&E estimates and forecasts, based on FAA Terminal Aviation Forecasts, T100, AirNav.com, discussions with Kenmore Air and other sources.

⁹⁵ Sources: SH&E estimates and forecasts, based on FAA Terminal Aviation Forecasts, T100, AirNav.com, discussions with Kenmore Air and other sources.

operations are projected to nearly double with projected increases to about 83,000 by 2030.

Leakage of Traffic Away from Smaller Airports to Larger Airports Will Continue through 2030

“Leakage” – the migration of passengers from an airport’s service area to other airports with greater air service offerings, lower fares or both – is an important issue at the smaller airports in Washington State. One airport estimates that as much as 74 percent of passenger traffic originating in its service areas drives to or from other airports.

Sea-Tac, Portland and Spokane are the primary airports diverting traffic from local airports in Washington State, and remain attractive to travelers because of the nonstop service these airports offer to both domestic and foreign destinations, and the high level of service frequency each airport offers. With Southwest and other LCC’s serving all three airports, the availability of low fares is an additional factor compelling passengers to drive long distances to these airports.

The significance of this for the state is that the biggest airports will continue to capture an overwhelmingly large share of Washington State’s traffic and commercial activity.

Smaller Airports Generally Dependent on a Single Carrier

Scheduled service at most of Washington’s smaller airports is increasingly characterized by dominance by a single air carrier, and in many cases, a single monopoly scheduled carrier.

With the exception of only Sea-Tac, Spokane and Pasco, a majority share of scheduled seats is held by one carrier at each of the other Washington State airports with scheduled service. At 13 of the 18 Washington State airports with scheduled air service, service is provided only by a single, monopoly carrier.

Airports that are dependent on a single air carrier for scheduled air service could be at greater risk for service loss than airports served by multiple carriers.

Major issues at smaller airports in Washington State include “Leakage”, or migration of passengers to other airports; significant service cutbacks and traffic losses over the past 10-15 years; and dominance by a single carrier

Trends Contributing to the Loss of Service at Smaller Airports in Recent Years Expected to Continue through 2030

Many of the smaller airports in Washington State have lost a substantial amount of air service in the last 10-15 years. With the exception of a Sea-Tac, Boeing Field, Bellingham and a number of San Juan Island airports, all other commercial service airports in Washington State have lost scheduled capacity since 1997. Six airports have lost scheduled service entirely.

With traffic and service continuing to be concentrated at Sea-Tac primarily, service loss at a number of the smaller airports remains a continuing possibility.

The Essential Air Service Program of the U.S. DOT could act to prevent a total loss of scheduled air service at those airports at greatest risk. However, even with EAS protection, communities are only guaranteed a minimum of two roundtrips a day to a designated hub airport. Given the low levels of service provided and subsidized under the EAS program, participating communities have often experienced continuing declines in passenger traffic.

Airports at greatest risk of service loss in the future are those served by only a single scheduled airline, with other airports nearby that can attract displaced passengers

Reduction in service at smaller airports is consistent with national trends, where carriers are seeking greater economies of scale by concentrating their operations at fewer airports.

Horizon, the dominant carrier at many of the state's commercial service airports, is in the midst of a new round of fleet "upgauging" along with many other regional air carriers in the United States. Horizon is acquiring 70 seat Dash 8 Q400 turboprops and CRJ-700 regional jets. Should the smaller 37-seat Dash 8 turboprops currently in Horizon's fleet be retired, a number of commercial service airports in Washington State may be at risk of losing scheduled service altogether, as it may be more difficult to operate larger aircraft economically to these communities with a reasonable level of service frequency.

The Essential Air Service Program could act to prevent a complete loss of service at any given airport

The airports at greatest risk are those that are currently served by Horizon on a monopoly basis, with other airports nearby that could attract the displaced passengers: Pullman/Moscow, Wenatchee and Walla Walla. It is conceivable that other carriers may enter the market, as Kenmore Air has done at Port Angeles, and Big Sky at Walla Walla in recent years

Commercial Service Issues for Special Emphasis Regions

- Puget Sound: Significant growth in commercial aviation activity is expected by 2030, even though Sea-Tac is expected to reach its capacity limits by 2024. Increases are the result in strong socio-economic growth expected in the region and throughout the state.
- Tri-Cities/Pasco: Commercial passenger service is provided by Tri-Cities/Pasco (PSC), the third busiest passenger airport in the state. Tri-Cities/Pasco is expected to remain a strong and growing market, with PSC attracting significant “leakage” traffic from other airports in southeast Washington. The forecasts do not suggest any immediate issues for the region.
- Spokane: Commercial passenger service is provided by Spokane (GEG), the second most important commercial service airport in the state. Spokane is expected to remain a strong market and to continue to attract “leakage” traffic from other airports in central and eastern Washington. The forecasts do not suggest any immediate issues for the region.
- Southwest Washington: No commercial airports are located in this region. Commercial passenger service is currently chiefly provided by Portland International Airport (PDX) located across the Oregon State border. A 2006 PDX passenger survey⁹⁶ estimated the number of passengers originating from the Southwest Washington region at approximately 1.2 million⁹⁷. Given the continued demographic and economic growth expected in Southwest Washington, continued growth in commercial passenger demand is also to be expected. Discussion with PDX officials indicate that the airport is not facing any capacity constraints and should be able to effectively serve the demands of the region through the forecast period.

⁹⁶ Source: Portland International Airport Profile of Washington State Non-Air Arrivals, 2006

⁹⁷ This figure understates actual passenger demand in the region, as it does not account for incoming visitors with ground destinations in the Southwest Washington region.